

## 1890s–1950s Timeline of Animation and Visual Effects

1892...	1914...	1927...	1932...	1939...
Edison and W. Dickson develop the 35 mm format using Eastman Kodak film stock, 1892	Winsor McCay's <i>Gertie The Dinosaur</i> , first short with live action and animation, 1914	Lang's <i>Metropolis</i> , '26 <i>The Jazz Singer</i> first talkie film, 1927	Kodak's 8 mm film and equipment, 1932	VFX Movies 1939: <i>The Rains Came</i> * <i>Gone with the Wind</i> <i>Only Angels Have Wings</i> <i>The Private Lives of Elizabeth and Essex</i> <i>Topper Takes a Trip</i> <i>Union Pacific</i> <i>The Wizard of Oz</i>
<i>The Execution of Mary, Queen of Scots</i> , 1895	D. W. Griffith's <i>The Birth of a Nation</i> , 1915	Disney's <i>Steamboat Willie</i> is first animated cartoon with synchronized sound, 1928	<i>King Kong</i> , and <i>The Invisible Man</i> , 1933	<i>The Private Lives of Elizabeth and Essex</i> <i>Topper Takes a Trip</i> <i>Union Pacific</i> <i>The Wizard of Oz</i>
Lumiere Brothers' <i>Train Arriving at Station</i> , 1895	Max Fleischer invents rotoscoping, 1915	<i>The Skeleton Dance</i> by Ub Iwerks, first Disney <i>Silly Symphony</i> , 1929	Fleischers' <i>Popeye the Sailor</i> debuts, 1933	Fleischer Brothers' <i>Gulliver's Travels</i> and <i>Felix the Cat</i> 1939
George Méliès <i>A Trip to the Moon</i> , 1902	Pathé Baby introduces 9.5 mm film, 1922	<i>The Fleischer Brother's Betty Boop</i> , 1930	<i>The Bride of Frankenstein</i> , 1935	Disney's <i>Pinocchio</i> , and <i>Fantasia</i> , 1940
Edwin Porter's <i>The Great Train Robbery</i> , 1903	Kodak introduces 16 mm reversal film, 1923	TV set patented, 1930	<i>Things to Come</i> , 1936	(* AMPAS Award Winners)
Winsor McCay's <i>Little Nemo</i> is first animated short, 1911	First Version of <i>The Thief of Bagdad</i> , 1924	<i>Frankenstein</i> , 1931	<i>Snow White and the Seven Dwarfs</i> , first animated feature, 1937	
	Willis O'Brien's animates dinosaurs in <i>The Lost World</i> , 1925	Disney's <i>Flowers and Trees</i> is first color animated short, 1932	Academy of Motion Picture Arts and Sciences creates Special Effects category, 1939	

  

1940–41	1941–42	1942–43	1944–45	1945–47
VFX Movies 1940: <i>The Thief of Bagdad</i> * 13 other finalists, incl.: <i>Dr. Cyclops</i> <i>Invisible Man Returns</i> <i>Rebecca</i> / <i>Typhoon</i> <i>Swiss Family Robinson</i>	Disney's <i>Dumbo</i> , 1941	Disney's <i>Bambi</i> , 1942	VFX Movies 1944: <i>Thirty Seconds Over Tokyo</i> * 6 other finalists, incl.: <i>The Adventures of Mark Twain</i> <i>Secret Command</i>	Disney's <i>The Three Caballeros</i> , 1945
VFX Movies 1941: <i>I Wanted Wings</i> * 7 other finalists, incl.: <i>Flight Command</i> <i>The Invisible Woman</i> <i>The Sea Wolf</i>	Superman animated series debuts with a 9 minute episode, 1941	Paul Terry creates <i>Mighty Mouse</i> as a Superman spoof, 1942	VFX Movies 1945: <i>Wonder Man</i> * <i>Captain Eddie</i> <i>Spellbound</i> <i>They Were Expendable</i> <i>A Thousand and One Nights</i>	VFX Movies 1946: <i>Blithe Spirit</i> * <i>A Stolen Life</i>
Other Movies w/VFX: <i>Citizen Kane</i>	VFX Movies 1942: <i>Reap the Wild Wind</i> * 9 other finalists, incl.: <i>The Black Swan</i> <i>Flying Tigers</i> <i>One of our Aircraft is Missing</i> <i>Invisible Agent</i>	VFX Movies 1943: <i>Crash Dive</i> * 5 other finalists, incl.: <i>Air Force</i> <i>Bombardier</i> <i>The North Star</i>		VFX Movies 1947: <i>Green Dolphin Street</i> * <i>Unconquered</i>
	Disney's <i>Saludos Amigos</i> , 1943			Disney's <i>Make Mine Music</i> , 1946
				Disney's <i>Fun and Fancy Free</i> , 1947

  

1948–49	1950–52	1953–55	1955–57	1958–59
VFX Movies 1948: <i>Portrait of Jennie</i> * <i>Deep Waters</i>	VFX Movies 1950: <i>Destination Moon</i> * <i>Samson and Delilah</i>	VFX Movies 1953: <i>War of the Worlds</i> * (only nominee)	VFX Movies 1955: <i>The Bridges At Toko-Ri</i> * <i>The Dam Busters</i> <i>The Rains of Ranchipur</i>	VFX Movies 1958: <i>Tom Thumb</i> * <i>Torpedo Run</i>
Disney's <i>Melody Time</i> , 1948	VFX Movies 1951: <i>When Worlds Collide</i> * (only nominee)	Disney's <i>Peter Pan</i> , 1953	Disney's <i>Lady and the Tramp</i> , 1955	<i>Vertigo</i>
15-episode live action <i>Superman</i> , 1948	Disney's <i>Cinderella</i> , 1950	VFX Movies 1954: <i>20,000 Leagues Under the Sea</i> * <i>Hell and High Water Them!</i>	VFX Movies 1956: <i>The Ten Commandments</i> * <i>Forbidden Planet</i>	VFX Movies 1959: <i>Ben Hur</i> * <i>Journey to the Center of the Earth</i>
VFX Movies 1949: <i>Mighty Joe Young</i> * <i>Tulsa</i>	Disney's <i>Alice in Wonderland</i> , 1951	<i>Godzilla</i> AKA <i>Gojira</i>		Disney's <i>Sleeping Beauty</i> , 1959
Disney's <i>The Adventures of Ichabod and Mr. Toad</i> , 1949	VFX Movies 1952: <i>Plymouth Adventure</i> * (only nominee)		VFX Movies 1957: <i>The Enemy Below</i> * <i>The Spirit of St. Louis</i>	Ub Iwerks improves optical film printer to shoot successive exposures, 1959

## 1960s Timeline of Animation and Visual Effects

1960	1961	1962	1963	1964
<p>Visual Effects Movies: <i>The Time Machine</i> * <i>The Last Voyage</i></p> <p><i>Psycho Spartacus</i></p> <p>John McCarthy develops the <b>LISP</b> programming language for artificial intelligence (AI) applications.</p> <p>Kodak introduces the <b>Ektachrome 7386</b> reversal print film stock.</p> <p>Warner Bros.' (WB) <i>The Bugs Bunny Show</i> animated series debuts on ABC primetime.</p> <p>Hanna-Barbera's <i>The Flintstones</i> is the first animated series to debut on primetime TV (ABC, 166 episodes).</p>	<p>Visual Effects Movies: <i>The Guns of Navarone</i> * <i>The Absent Minded Professor</i></p> <p><i>El Cid</i></p> <p>Disney's <i>One Hundred and One Dalmatians</i></p> <p>John Whitney creates <i>Catalog</i> on 16 mm film and a mechanical analog computer.</p> <p>Fairchild Camera and Semiconductor Instrument manufactures the first integrated circuit on a chip.</p> <p>Hanna-Barbera's (HB) <i>Top Cat</i> animated series debuts on ABC.</p>	<p>Visual Effects Movies: <i>The Longest Days</i> * <i>Mutiny on the Bounty</i></p> <p><i>Dr. No</i> (first 007 film)</p> <p>Sketchpad system for interactive computer graphics developed by Ivan Sutherland at MIT.</p> <p>MIT students Slug Russell, Shag Graetz, and Alan Kotok create <i>SpaceWar!</i> the first interactive computer game on a DEC PDP-1.</p> <p><i>Mr. Computer Image ABC</i>, created by Lee Harrison III with the Scanimate System.</p> <p>Hanna-Barbera's futuristic <i>The Jetsons</i> animated series debuts on ABC (24 episodes).</p>	<p>Visual Effects Movies: <i>Cleopatra</i> * <i>The Birds</i></p> <p><i>Jason and the Argonauts From Russia with Love</i></p> <p>The stop-motion skeletons animated by Ray Harryhausen in <i>Jason and the Argonauts</i> become effects classic.</p> <p>Disney's <i>The Sword in the Stone</i></p> <p>John Whitney's <i>Lapis</i></p> <p>IBM introduces the 360 models, the first family of computers, a Fortran-based time-sharing system.</p> <p>Polaroid introduces instant color film.</p>	<p>Visual Effects Movies: <i>Mary Poppins</i> * <i>7 Faces of Dr. Lao</i></p> <p><i>Goldfinger</i></p> <p><i>Mary Poppins</i> live action movie with 2D animated sequences.</p> <p><i>Attoftb Carrier Landing</i>, a 3D animation by William Fetter at Boeing in Seattle</p> <p>Thomas Kurtz and John Kemeny develop the <b>BASIC</b> programming language.</p> <p>Instant replay and slow motion debut on televised sports.</p> <p>Hanna-Barbera's sci-fi action-adventure <i>Jonny Quest</i> debuts on ABC (26 episodes).</p>

1965	1966	1967	1968	1969
<p>Visual Effects Movies: <i>Thunderball</i> * <i>The Greatest Story Ever Told</i></p> <p><i>Thunderball</i> (fourth 007 film)</p> <p>Stereo computer animations by Michael Noll and Bela Julesz at Bell Laboratories</p> <p>Kodak introduces <b>Super 8 mm</b>, a new amateur film format.</p> <p><i>Charlie Brown's Christmas</i> debuts as the first animated special on television.</p> <p><i>The Thunderbirds</i> series breaks new ground in marionette TV animation.</p>	<p>Visual Effects Movies: <i>Fantastic Voyage</i> * <i>Hawaii</i></p> <p><i>Batman</i></p> <p><i>The Battle of Algiers</i></p> <p><i>Fahrenheit 451</i></p> <p><i>One Million Years B.C.</i></p> <p><i>Hummingbird</i> by Charles Csuri, first examples of computer-generated representational animation</p> <p>Final episode of the original <i>The Flintstones</i> series airs.</p>	<p>Visual Effects Movies: <i>Doctor Dolittle</i> * <i>Tobruk</i></p> <p><i>You Only Live Twice</i></p> <p>Disney's <i>The Jungle Book</i></p> <p><i>Cockpit Simulation</i> by Boeing's W. Fetter with 3D CG human.</p> <p>Rauschenberg and Klüver's <i>Experiments in Art and Technology</i> in New York City</p> <p>Hanna-Barbera's <i>The Fantastic Four</i> and <i>Shazzan</i> debut on ABC.</p> <p>Marvel Comics' <i>Spiderman</i> animated series debuts on ABC.</p> <p>52 animated episodes of anime <i>Speed Racer</i> dubbed to English.</p>	<p>Visual Effects Movies: <i>2001: A Space Odyssey</i> * <i>Ice Station Zebra</i></p> <p><i>Planet of the Apes</i></p> <p>New visual style in <i>The Yellow Submarine</i> by George Dunning</p> <p><i>Permutations</i> by John Whitney</p> <p>Evans &amp; Sutherland opens.</p> <p>The Motion Picture Producers of America's (MPPA) new movie <b>rating system</b></p> <p>Kodak's <b>Eastman 5249</b> color reversal intermediate film, for one-step duplication of originals</p> <p>WB releases <i>Wacky Races</i> animated series.</p>	<p>Visual Effects Movies: <i>Marooned</i> * <i>Krakatoa, East of Java</i></p> <p><i>On Her Majesty's Secret Service</i></p> <p><i>A Boy Named Charlie Brown</i>, by B. Melendez</p> <p><i>Pas De Deux</i>, by Norman McLaren</p> <p>Sony's 3/4 in. <b>U-matic</b> video cassette</p> <p>Kenneth Thompson and Dennis Ritchie develop <b>UNIX</b> at AT&amp;T Bell Laboratories.</p> <p>Warnock's <b>area subdivision</b> hidden surface removal algorithm</p> <p>HB's <i>Scooby-Do</i> <i>Where are You!</i> series</p> <p>The <i>Pink Panther Show</i> animated series debuts on NBC.</p>

Visual Effects Movies: *Tora! Tora! Tora!* Patton

*Airport M\*A\*S\*H*

Dr. Seuss' *Horton Hears a Who!* hour animated special directed by Chuck Jones.

Minicomputer choice for 3D computer animation, Digital Equipment Corporation's and VAX models

Watkins' scan den surface rendering

IMAX projection cameras at the Expo 70 in Japan

Visual Effects Movies: *The Hindenburg* (only nominee)

*Jaws Rollerball*

George Lucas starts *Industrial Light & Magic* in California

Sony introduces 1/2 in. Betamax videotape format

The University of Utah becomes a center for innovative research in computer graphics

## 1970s Timeline of Computer Animation and Visual Effects

1970	1971	1972	1973	1974
<p>Visual Effects Movies: <b>Tora! Tora! Tora!</b> * <b>Patton</b></p> <p><b>Airport M*A*S*H</b></p> <p>Dr. Seuss' <b>Horton Hears a Who!</b>, half-hour animated TV special directed by Chuck Jones.</p> <p>Minicomputers are this decade's tool of choice for 3D computer animation, including Digital Equipment Corporation's PDP and VAX models.</p> <p>Watkins' <b>scan line</b> hidden surface removal</p> <p>IMAX projection premieres at the Osaka Expo 70 in Japan.</p>	<p>Visual Effects Movies: <b>Bedknobs and Broomsticks</b> * <b>When Dinosaurs Ruled the Earth</b></p> <p><b>Silent Running</b></p> <p><b>Fritz the Cat</b> by Ralph Bakshi</p> <p><b>Animated Faces</b>, by Fred I. Parke at University of Utah</p> <p>Intel releases its 4-bit <b>4004</b> microprocessor.</p> <p>IBM invents the 8 in. floppy diskette.</p> <p><b>Robert Abel &amp; Associates</b> opens.</p> <p><b>Dolby</b> techniques reduce noise in recorded sound in Kubrick's <b>A Clockwork Orange</b>.</p>	<p>Visual Effects Movies: <b>The Poseidon Adventure</b> * (only nominee)</p> <p><b>Heavy Traffic</b> by Ralph Bakshi</p> <p>Atari opens and releases <b>Pong</b> arcade game.</p> <p>Intel releases 8-bit <b>8008</b> microprocessor.</p> <p>Newell's <b>depth sort</b> hidden surface removal</p> <p><b>MAGI</b> animates computer-rendered polygonal objects.</p> <p>Phillips and MCA demonstrate <b>videodisc</b> recorder and player system.</p> <p>Polaroid's <b>SX-70</b> camera brings one-step instant photography.</p>	<p>Visual Effects Movies: <b>The Exorcist Westworld</b> (No AMPAS Visual Effects Award given this year).</p> <p><b>The Savage Planet</b> by René Laloux</p> <p>Warner Bros. and Hanna-Barbera's <b>Charlotte's Web</b></p> <p>Hanna-Barbera releases <b>The Adams Family</b> animated TV series.</p> <p>Cable TV goes into the mainstream during this decade.</p> <p><b>Toei Animation</b> releases <b>Mazinger Z</b> TV animated series.</p>	<p>Visual Effects Movies: <b>Earthquake</b> * (only nominee)</p> <p><b>Chinatown</b></p> <p><b>The Towering Inferno</b></p> <p><b>Young Frankenstein</b></p> <p><b>Hunger</b> by Peter Foldes, National Film Board of Canada</p> <p>Intel and Zilog release the <b>Intel 8080</b> microprocessor.</p> <p>The first <b>SIGGRAPH</b> conference is held in Boulder, Colorado, with 600 attendees.</p> <p>Technicolor stops U.S. production of <b>dye-transfer</b> film prints.</p>
1975	1976	1977	1978	1979
<p>Visual Effects Movies: <b>The Hindenburg</b> * (only nominee)</p> <p><b>Jaws</b></p> <p><b>Rollerball</b></p> <p>George Lucas starts <b>Industrial Light &amp; Magic</b> in California.</p> <p>Sony introduces the 1/2 in. <b>Betamax</b> videotape format.</p> <p>The University of Utah becomes a center of innovative research in computer graphics.</p>	<p>Visual Effects Movies: <b>King Kong</b> * and <b>Logan's Run</b> * (dual award)</p> <p>Shugart Associates develops the 5.25 in. floppy diskette.</p> <p>The 64-bit <b>Cray I</b> supercomputer solves 166 million floating point operations per second.</p> <p>Steve Wozniak designs the <b>Apple I</b>.</p> <p>The <b>Steadicam</b>, a camera-stabilizing system, used for the first time in the film <b>Rocky</b>.</p> <p>Canon's <b>AE-1</b> is first 35 mm film still camera with a built-in microprocessor.</p>	<p>Visual Effects Movies: <b>Star Wars</b> * <b>Close Encounters of the Third Kind</b></p> <p><b>Airport '77</b></p> <p><b>The Spy Who Loved Me</b></p> <p><b>Voyager</b> animated simulations of space exploration by Jim Blinn at Jet Propulsion Lab.</p> <p>Atari introduces its <b>VCS 2600</b> videogame home system.</p> <p>The <b>Apple II</b> microcomputer is released.</p> <p>Radio Shack releases its <b>TRS-80</b> computer.</p> <p>Matsushita releases the 1/2 in. <b>VHS</b> (Video Home System) videotape format.</p>	<p>Visual Effects Movies: <b>Superman</b> * (only nominee)</p> <p><b>Capricorn One</b></p> <p><b>Halloween</b></p> <p><b>Invasion of the Body Snatchers</b></p> <p><b>The Lord of the Rings</b> by Ralph Bakshi</p> <p>Midway imports Taito's <b>Space Invaders</b> arcade game into U.S.</p> <p>Digital Equipment releases the <b>VAX 11/780</b> minicomputer.</p> <p>Artist <b>Leroy Neiman</b> uses a CG system to create 2D images in real-time during the CBS broadcast of the Super Bowl.</p>	<p>Visual Effects Movies: <b>Alien</b> * <b>1941</b></p> <p><b>The Black Hole</b></p> <p><b>Moonraker</b></p> <p><b>Star Trek—The Motion Picture</b></p> <p><b>Apocalypse Now</b></p> <p><b>Galaxy Express 999: The Signature Edition</b>, anime by Rintaro</p> <p>Hayao Miyazaki's <b>The Castle of Cagliostro</b></p> <p>Atari releases <b>Asteroids</b> arcade game.</p> <p>Motorola releases 32-bit <b>68000</b> processor.</p> <p><b>Voyager 2</b> visualizations by James Blinn at the Jet Propulsion Lab</p> <p><b>Digital Effects</b> opens in New York, <b>Activision</b> in California, Computer group starts at <b>ILM</b>.</p>

## Early 1980s Timeline of Computer Animation and Visual Effects

1980	1981	1982	1983	1984
<p>Visual Effects Movies: <i>The Empire Strikes Back</i> * (only nominee)</p> <p><i>Airplane!</i> <i>Battle Beyond the Stars</i> <i>Mad Max</i> <i>Saturn 3</i> <i>Xanadu</i></p> <p><i>The Empire Strikes Back</i> takes "effects movies" to a new level of complexity and accomplishment.</p> <p>Paul Grimault's <i>Le roi et l'oiseaux</i> (The King and Mr. Bird).</p> <p><i>Vol Libre</i>, animation of fractal landscapes by Loren Carpenter</p> <p>Atari releases <i>Space Invaders</i> for its VCS 2600 system.</p> <p>Namco releases <i>Pac Man</i>, most popular arcade game ever.</p> <p>Seagate Technology releases <b>hard disks</b> for microcomputers.</p> <p><b>Pacific Data Images</b> (PDI) opens in Northern California.</p> <p>Pioneer markets their <b>videodisc players</b>.</p> <p>Microcomputers become popular during this decade.</p>	<p>Visual Effects Movies: <i>Raiders of the Lost Ark</i> * <i>Dragonslayer</i></p> <p><i>An American Werewolf in London</i> <i>Clash of the Titans</i> <i>Escape from New York</i> <i>Looker</i> <i>The Road Warrior</i></p> <p><i>Looker</i>, becomes first film featuring the first virtual actor, <i>Cindy</i>, made from simulated body scans of actress Susan Dey.</p> <p><i>American Pop</i> by Ralph Bakshi</p> <p><i>The Secret of Nimh</i>, by Bluth Productions</p> <p>IBM releases its 8088-based <b>PC computer</b> with the MS-DOS operating system.</p> <p>Sony introduces 3.5 in. diskettes.</p> <p>Philips develops the optical <b>CD-ROM</b>.</p> <p>Adam Osborne develops the 24 lb. <b>Osborne I</b>, the first portable computer.</p> <p><b>Wavefront</b> opens in Santa Barbara, <b>Digital Productions</b> in L.A., <b>R/Greenberg Assoc.</b> (RGA) in New York, and <b>Cranston/Csuri Productions</b> in Columbus, Ohio.</p> <p>Quantel introduces its <b>Paintbox</b> digital paint system.</p> <p><b>MTV</b> goes live on cable television.</p> <p>Hanna-Barbera's <i>The Smurfs</i> series debuts on NBC.</p>	<p>Visual Effects Movies: <i>E.T. the Extra-Terrestrial</i> * <i>Blade Runner</i> <i>Poltergeist</i></p> <p><i>Firefox</i> <i>Star Trek II—The Wrath of Kahn</i> <i>TRON</i></p> <p><i>TRON</i> is first live action film with over 20 minutes of 3D computer animation.</p> <p>ILM's <b>Genesis Effect</b> created for <i>Star Trek II</i>, is the first all-computer-animated visual effects movie shot.</p> <p>Jim Henson creates <i>The Dark Crystal</i> with puppetry, stop motion, and animatronics.</p> <p><i>Le maitres du temps</i> by René Laloux</p> <p><i>Carla's Island</i> by Nelson Max at the Lawrence Livermore National Lab</p> <p>SubLogic develops the <b>Microsoft Flight Simulator</b> computer game for the Apple II, later for the PC.</p> <p><b>CT5 Flight Simulator</b> by Evans &amp; Sutherland</p> <p><i>Non-Edge Cloud and Smoke Simulations</i> by Goffrey Gardner at Grumman Systems</p> <p><b>Autodesk</b> opens in California, releases <b>AutoCAD</b> for the PC.</p> <p><b>Silicon Graphics</b> (SGI), <b>Adobe</b>, and <b>Electronic Arts</b> (EA) open in California; <b>Omnibus Computer Graphics</b> and <b>Alias Research</b> in Toronto; <b>Toyo Links</b> opens in Tokyo.</p> <p>Canon demonstrates first <b>electronic still camera</b>.</p>	<p>Visual Effects Movies: <i>Return of the Jedi</i> * (only nominee)</p> <p><i>Blue Thunder</i> <i>Brainstorm</i> <i>Hercules</i> <i>Jaws 3-D</i> <i>Octopussy</i> <i>Superman III</i> <i>Twilight Zone: The Movie</i> <i>WarGames</i></p> <p><i>Fire and Ice</i> by Ralph Bakshi.</p> <p><i>Growth: Mysterious Galaxy</i>, the first in a series of semi-abstract animations by artist-programmer Yoichiro Kawaguchi.</p> <p>The inexpensive <b>Commodore 64</b> computer outperforms videogame consoles.</p> <p>Arcade game <b>Dragon's Lair</b>, animated by Don Bluth, first to use laserdisc technology.</p> <p>Compaq introduces the first <b>PC-clone</b> computer.</p> <p>SGI introduces the <b>IRIS 1000</b> computer based on a Motorola 68000 with a dozen <b>Geometry Engines</b>.</p> <p><b>Tippett Studios</b> opens in Berkley, <b>Polygon Pictures</b> in Tokyo.</p> <p>During the mid-1980s commercial production is led by Pacific Data Images (PDI), Digital Productions, Cranston-Csuri, Sogitec, Toyo Links and Omnibus.</p> <p><b>MIDI</b> (Musical Instrument Digital Interface) introduced by electronic instrument manufacturers.</p>	<p>Visual Effects Movies: <i>Indiana Jones and the Temple of Doom</i> * <i>Ghostbusters</i> <i>2010</i></p> <p><i>Nausicaä of the Valley of the Wind</i> by Hayao Miyazaki.</p> <p>Trailer for <i>The Works</i>, an unfinished New York Institute of Technology movie.</p> <p><i>Bio-Sensor</i> created at Osaka University and Toyo Links, is an early example of modeling with blobby surfaces and figure locomotion.</p> <p><i>Still Life Etude</i>, an early simulation of light, fog, rain, and skies created at Hiroshima University.</p> <p>Apple Computer releases the <b>Macintosh</b>.</p> <p>IBM releases its 80286-based <b>PC-AT</b>.</p> <p><b>Pixar</b> opens its doors.</p> <p><b>Film Roman</b> opens in L.A., <b>The Computer Film Company</b> (CFC) in London.</p> <p>MPPA rating system is expanded to include a <b>PG-13</b> category.</p> <p>Herbie Hancock's music video <i>Rockit</i> receives Best Special Effects award at MTV's first Video Music Awards.</p> <p>Hanna-Barbera's <i>The New Scooby-Doo Mysteries</i> TV series debuts on ABC.</p>

Visual Effects Movies: *Cocoon* \*  
*Return to Young Sherlock Holmes*

*Back to the Future Part II*

*The Last Starfighter*

*The Last Starfighter* created by digital supercomputer. First live action film with computer animation.

*The Black Cauldron*, first Disney feature film with CG technique.

*Brilliance* by Abel and features a robot with realistic movement.

*Growth III* by Kawaguchi

*Tony de Pina* by Pierre LaChapelle team.

U.S. releases **Nintendo Entertainment System** (NES) Super Mario Bros.

SEGA releases *Master and Commander*

Bell Labs' *Stoustrup* C++ program.

Kleiser-Walsh Digital Effects Co. (MPC) production of *The Motion Picture* production.

First wave of friendly 3D animation software.

The National Science Foundation NSFNET, a network (for Internet), for and academic

## Late 1980s Timeline of Computer Animation and Visual Effects

1985	1986	1987	1988	1989
<p>Visual Effects Movies: <i>Cocoon</i> * <i>Return to Oz</i> <i>Young Sherlock Holmes</i></p> <p><i>Back to the Future</i> <i>The Last Starfighter</i></p> <p><i>The Last Starfighter</i> created with a Cray supercomputer at Digital Productions, first live action feature film with realistic computer animation.</p> <p><i>The Black Cauldron</i>, first Disney animated feature film to use 3D CG technology</p> <p><i>Brilliance</i> commercial by Abel and Associates features sexy female robot with convincing realistic motion.</p> <p><i>Growth III</i> by Yoichiro Kawaguchi</p> <p><i>Tony de Peltrie</i> by Pierre Lachapelle and team.</p> <p>U.S. release of 8-bit <i>Nintendo Entertainment System (NES)</i> with Super Mario Brothers.</p> <p>SEGA releases 8-bit <i>Master</i> game system.</p> <p>Bell Labs' Bjarne Stoustrup develops C++ prog. language.</p> <p>Kleiser-Walczak opens. <i>Digital Effects</i> closes. <i>The Moving Picture Co.</i> (MPC) starts 3D production in London.</p> <p>First wave of user-friendly 3D computer animation software.</p> <p>The National Science Foundation creates NSFNET, a 56 Kbps network (future Internet), for research and academic work.</p>	<p>Visual Effects Movies: <i>Aliens</i> * <i>Little Shop of Horrors</i></p> <p><i>Flight of the Navigator</i></p> <p>In Disney's <i>The Great Mouse Detective</i> the moving gears in the chase sequence are created with 3D computer animation.</p> <p><i>Laputa: Castle in the Sky</i> by H. Miyazaki</p> <p><i>An American Tail</i> by Don Bluth</p> <p>Jim Henson's <i>Labyrinth</i></p> <p>John Lasseter's <i>Luxo Jr.</i> nominated in AMPAS Animated Short Films category.</p> <p>The still image <i>Road to Point Reyes</i> redefines realism by compositing graftals and fractals to portray a landscape.</p> <p><i>Visitor on a Foggy Night</i> by the CG Research Group at Hiroshima University</p> <p>Intel releases the 32-bit, 4-million-operations-per-second <i>Intel 80386</i> microprocessor.</p> <p>SGI introduces the <i>IRIS 3000</i> series, with a MIPS single processor, and a 10 MHz <i>Geometry Engine</i>.</p> <p><i>Softimage</i> opens in Montreal, <i>Mac Guff Ligne</i> in Paris, <i>Ubisoft</i> in Montreuil-sous-Bois, <i>VIFX</i> in L.A., <i>Mental Images</i> in Berlin, and <i>Framestore</i> in London. <i>Omnibus</i> declares bankruptcy.</p> <p>Quantel's <i>Harry</i> provides component digital video processing.</p> <p>Toei Animation releases <i>Dragon Ball</i> series.</p>	<p>Visual Effects Movies: <i>Innerspace</i> * <i>Predator</i></p> <p><i>Akira</i> by Katsuhiro Otomo popularizes anime, feature-length sci-fi Japanese animation, with international audiences.</p> <p><i>Stanley and Stella: Breaking the Ice</i> by Symbolics Graphics and Whitney Demo Productions, early flock animation</p> <p><i>Red's Dream</i> by Pixar</p> <p><i>Balloon Guy</i> by Chris Wedge at Ohio State University</p> <p><i>Rendezvous in Montreal</i> by Nadia Magnenant Thalmann and team.</p> <p>Nintendo releases <i>Legend of Zelda</i> NES cartridge in the U.S.</p> <p><i>Rhythm &amp; Hues</i> opens in Los Angeles, <i>Blue Sky Studios</i> opens in New York, <i>Side Effects Software</i> in Toronto.</p> <p>Research in the simulation of natural-looking hair and fur, rigid body dynamics, and modeling fabric with visible threads starts in the late 1980s.</p> <p>First <i>Game Developers Conference</i> organized by Chris Crawford in San Jose, California, with 27 attendees.</p> <p>Bill Atkinson at Apple Computer develops <i>Hypercard</i> as an interactive software development tool.</p> <p>Hanna-Barbera releases 13 new episodes of <i>Jonny Quest</i>.</p>	<p>Visual Effects Movies: <i>Who Framed Roger Rabbit</i> * <i>Die Hard</i> <i>Willow</i></p> <p><i>Who Framed Roger Rabbit</i> breaks new ground by combining live actors with animated characters.</p> <p>Many cars in Disney's <i>Oliver &amp; Company</i> are 3D CGI models.</p> <p><i>My Neighbor Totoro</i> by Hayao Miyazaki</p> <p>Stop motion, puppetry, and live action in Jan Svankmajer's <i>Alice</i></p> <p><i>The Land Before Time</i> by Don Bluth, the first of many in a direct-to-video franchise</p> <p><i>Graveyard of the Fireflies</i> by anime director Isao Takahata</p> <p>Pixar's <i>Tin Toy</i> by John Lasseter and William Reeves wins AMPAS award.</p> <p><i>Technological Threat</i> by William Kroyer and Brian Jennings</p> <p><i>Locomotion</i>, a Pacific Data Images short, early example of 3D squash-and-stretch.</p> <p>Nintendo releases portable <i>Game Boy</i> at 140 x 120 pixels, 2.14 MHz, with <i>Tetris</i> game.</p> <p><i>RenderMan</i> shading language released and awarded U.S. patent.</p> <p>Namco purchases the Japan Computer Graphics Lab.</p> <p><i>The Sky</i>, simulations of light and skies at Hiroshima University.</p> <p>Waldo C. Graphic animated in real time for the <i>Jim Henson Hour</i>.</p>	<p>Visual Effects Movies: <i>The Abyss</i> * <i>The Adventures of Baron Munchausen</i> <i>Back to the Future Part II</i></p> <p><i>Indiana Jones and the Last Crusade</i> <i>Field of Dreams</i> <i>Ghostbusters II</i></p> <p><i>The Abyss</i> includes first convincing 3D character animation.</p> <p><i>The Little Mermaid</i> is Disney's last film to use traditional ink and paint, CG closing shot.</p> <p><i>Kiki's Delivery Service</i> by Hayao Miyazaki opens in Japan.</p> <p><i>All Dogs Go to Heaven</i> by Don Bluth</p> <p><i>Knickknack</i> by Pixar, <i>Don't Touch Me</i> by Kleiser-Walczak, early motion capture character animation</p> <p>Preview of NYIT's <i>The Works</i>, <i>The Little Death</i> by Matt Elson at Symbolics, <i>Eurythmy</i> by Susan Amkraut and Michael Girard</p> <p>SEGA releases 16-bit <i>Genesis</i> game system.</p> <p>Maxis releases <i>SimCity</i>.</p> <p>Intel releases its 32-bit <i>80486</i> microprocessor.</p> <p>CA Scanline opens. Sogitec and TDI merge into <i>Ex Machina</i>.</p> <p>Letraset releases <i>Color Studio</i> image retouching software for Macs.</p> <p>Matt Groening's <i>The Simpsons</i> TV debut.</p>

## Early 1990s Timeline of Computer Animation and Visual Effects

1990	1991	1992	1993	1994
<p>Visual Effects Movies: <b>Total Recall *</b> (only nominee)</p> <p><b>Back to the Future III</b> <b>Die Hard 2: Die Harder</b> <b>Dick Tracy</b> <b>Ghost</b> <b>The Hunt for Red October</b></p> <p>Disney's <b>The Rescuers Down Under</b>, first Disney animated feature film done entirely with the first version of the CAPS System</p> <p>Hanna-Barbera's <b>Jetsons: The Movie</b> includes computer animated vehicles and environments.</p> <p>Karl Sims' <b>Panspermia</b>, early particle systems computer animation.</p> <p>Origin Systems releases <b>Wing Commander</b>, a cinematic space adventure PC game.</p> <p>Nintendo releases <b>Super Mario 3</b>, the all-time best-selling video-game cartridge.</p> <p>Adobe releases <b>Photoshop</b> for Apple Macintosh computers.</p> <p>NewTek's <b>Lightwave</b> software bundled with <b>Toaster</b> hardware.</p> <p><b>Santa Barbara Studios</b> opens in Los Angeles, <b>The Mill</b> in London.</p> <p>Tim Berners-Lee at CERN develops the HyperText Markup Language (<b>HTML</b>).</p> <p>MPAA renames their X rating to <b>NC-17</b> (No one 17 and Under).</p> <p>Warner Bros. releases <b>Steven Spielberg's Tiny Toon Adventures</b> animated series.</p>	<p>Visual Effects Movies: <b>Terminator II: Judgment Day *</b></p> <p><b>Backdraft</b> <b>Hook</b></p> <p><b>Star Trek VI</b></p> <p><b>Terminator II</b> is the first mainstream blockbuster movie with multiple morphing effects and simulated natural human motion.</p> <p>The animated camera in Disney's <b>Beauty and the Beast</b> travels in 3D space; first animated film nominated for AMPAS Best Picture.</p> <p>Studio Ghibli's <b>Only Yesterday</b> AKA <b>Omohide Poro Poro</b></p> <p><b>Mutations</b> by William Latham and IBM UK <b>Don Quichotte</b> by Video System uses keyframe character animation techniques.</p> <p><b>Leaf Magic</b> by Alan Norton uses motion dynamics animation.</p> <p>U.S. release of 16-bit <b>Super Nintendo Entertainment System (SNES)</b> with real-time scaling, transparency.</p> <p>Spectrum Holobyte's <b>Falcon</b>, multiplayer jet combat simulation game. Capcom's <b>Street Fighter II</b> arcade game.</p> <p>Motorola's 32-bit <b>68040</b> microprocessor.</p> <p>Apple Computer releases <b>QuickTime</b>.</p> <p><b>LINUX</b> v. 0.01 Open Source OS released to Net by Linus Torvalds.</p> <p><b>Animal Logic</b> opens in Sydney, Australia, <b>Cinesite</b> in Hollywood, <b>Discreet Logic</b> in Montreal.</p> <p>Disney/Pixar \$26 million deal to produce 3 computer-animated features.</p>	<p>Visual Effects Movies: <b>Death Becomes Her *</b> <b>Aliens 3</b> <b>Batman Returns</b></p> <p><b>Bram Stoker's Dracula</b> <b>The Lawnmower Man</b></p> <p>Early 1990s defined by successful revival of live action feature movies with visual effects.</p> <p><b>Aladdin</b> is Disney's first use of fully computer animated character and 3D organic surfaces.</p> <p><b>Porco Rosso</b> by Hayao Miyazaki</p> <p>Kroyer Films' hand-drawn <b>Fern Gully... The Last Rainforest</b> uses edge-detection filters to draw outlines around 3D objects.</p> <p><b>Cool World</b> by Ralph Bakshi</p> <p><b>Liquid Selves</b>, particle systems animation by Karl Sims</p> <p><b>The Seven Wonders of the World</b> by Electric Images pushes the boundaries of architectural visualization.</p> <p><b>Foundation Imaging</b> and <b>Sony Imageworks</b> open.</p> <p>SimmGraphics' facial motion capture system <b>Facetracker</b> used to animate <b>Super Mario</b>.</p> <p>NSFNET upgrades to 45 Mbps T-3 lines.</p> <p>Warner Bros. releases <b>Batman: The Animated Series</b> and the <b>Steven Spielberg Presents Animaniacs</b> series.</p> <p>(1991)</p> <p>Kodak's <b>Professional Digital Camera System</b></p> <p>Peter Greenaway's <b>Prospero's Books</b> integrates windows with traditional film editing.</p>	<p>Visual Effects Movies: <b>Jurassic Park *</b> <b>Cliffhanger</b> <b>The Nightmare Before Christmas</b></p> <p><b>The Fugitive</b></p> <p><b>Jurassic Park</b> sets new standards for realism, inverse kinematics and digital compositing.</p> <p>Tim Burton's <b>The Nightmare Before Christmas</b> takes stop motion to new heights and becomes a classic.</p> <p>Computer animation for <b>Babylon 5</b> TV series is produced with off-the-shelf micro-computer systems.</p> <p>First <b>Polar Bears</b> commercial for Coca-Cola by Rhythm &amp; Hues.</p> <p><b>Myst</b> pushes the limits of a CD-ROM interactive visual experience.</p> <p>George Romero and id Software release <b>Doom</b>. First-person shooting games are forever changed.</p> <p><b>Pixar</b> receives an AMPAS Technical Award for <b>RenderMan</b>.</p> <p>Adobe releases Windows <b>Photoshop</b>.</p> <p>SGI's <b>Onyx</b> with 2-24 MIPS R-4400 procs and <b>Reality Engine2</b>.</p> <p><b>Digital Domain</b> and <b>Nvidia</b> open in Calif., <b>Kaydara</b> in Montreal, <b>Weta Digital</b> in New Zealand, <b>Mainframe</b> in Vancouver, Canada.</p> <p>Cartoon Network goes live with <b>The Moxy Show</b>, an early real-time virtual TV host.</p> <p>WB releases the <b>Two Stupid Dogs</b> TV series.</p> <p>WB releases the <b>Batman: Mask of the Phantasm</b> in theatres instead of DTV.</p>	<p>Visual Effects Movies: <b>Forrest Gump *</b> <b>The Mask</b> <b>True Lies</b></p> <p><b>The Flintstones Speed</b></p> <p>The wildebeest stampede in Disney's <b>The Lion King</b> is a tour de force in the integration of traditional and 3D computer animation.</p> <p>Jan Svankmajer's <b>Faust</b></p> <p>Don Bluth's <b>Thumbelina</b></p> <p><b>Listerine Arrows</b> TV commercial by Pixar</p> <p>Sony's <b>PlayStation</b> and SEGA's <b>Saturn</b> 32-bit platforms are introduced in Japan (U.S. in '95), reinvigorate electronic game industry.</p> <p>The Entertainment Software Rating Board issues <b>rating categories</b> for video and computer games.</p> <p><b>CORE Digital Pictures</b> opens in Toronto, <b>Cinesite</b> in London.</p> <p><b>Immersion</b>, an early experiment in image-based rendering</p> <p>Supermicrocomputers, or workstations, based on 32-bit or 64-bit CISC and RISC processors gain popularity early in the decade.</p> <p>Apple releases <b>PowerPC</b> computers.</p> <p>NewTek starts selling <b>Lightwave</b> as stand-alone software.</p> <p>Softimage ships <b>Mental Ray</b> as optional renderer.</p> <p>Microsoft buys Softimage.</p> <p>DVD format debuts.</p>

1995
<p>Visual Effects Movies: <b>Babe *</b> <b>Apollo 13</b></p> <p><b>Batman Forever</b> <b>Casper</b> <b>The City of the Living Dead</b> <b>Child's Play</b> <b>Crimson Tide</b> <b>Die Hard: With a Vengeance</b> <b>Goldeneye</b> <b>Judge Dredd</b> <b>Jumanji</b> <b>Species</b> <b>Twelve Monkeys</b> <b>Waterworld</b></p> <p><b>Goldeneye</b> film with computer-animated features</p> <p><b>Toy Story</b> 3D computer-animated feature film</p> <p>The canceled <b>Willow</b> series Disney's <b>Peter Dinklage</b> created <b>Willow</b> Mamoru Oshii's <b>in the Shell</b></p> <p>Squash and Associates R/GA's <b>Dan</b> cartoon character Chris Landrum</p> <p>id Software's online game <b>Nintendo 64</b> platform introduced in Japan (U.S. in '95)</p> <p>Blur and Pirelli <b>Liberation</b> in Venice, <b>Cinesite</b> opens <b>Sparx*</b> opens <b>Alias/Warner Bros.</b> by Silicon Graphics</p> <p>The Internet a self-supporting commercial open <b>DV</b> videotape introduced introduced the titanium of 550 <b>MPEG-2</b> for spec published</p> <p>Warner Bros. the <b>Pinky and the Brain</b> TV series</p>

## Late 1990s Timeline of Computer Animation and Visual Effects

1995

1996

1997

1998

1999

Categories

VFX Movies

Animated Features

Independent Shorts

Computer Games

Technology / Events

Visual Tech / Events

Television

Visual Effects Movies:  
*Babe* \*  
*Apollo 13*

*Batman Forever*  
*Casper* / *Congo*  
*The City of Lost Children* AKA *La cité des enfants perdus*  
*Crimson Tide*  
*Die Hard: With a Vengeance*  
*Goldeneye*  
*Judge Dredd*  
*Jumanji* / *Stargate*  
*Species*  
*Twelve Monkeys*  
*Waterworld*

*Goldeneye* is first 007 film with 3D computer-animated effects.

*Toy Story* is first fully 3D computer-animated feature movie.

The canoe and Mother Willow sequences in Disney's *Pocahontas* created with 3D CG.

Mamoru Oshii's *Ghost in the Shell* (U.S. in '98)

Squash and stretch in R/GA's *Dance Fever* cartoon car commercial

Chris Landreth's *the end*

id Software releases online game *Quake*.

Nintendo 64 64-bit platform introduced in Japan (U.S. in '96).

Blur and Pixel Liberation Front open in Venice, California, *Sparx*\* opens in Paris.

Alias/Wavefront bought by Silicon Graphics.

The Internet becomes a self-supporting commercial operation.

DV videotape format introduced by consortium of 55 companies.

MPEG-2 format and spec published

Warner Bros. releases the *Pinky and the Brain* TV series.

Visual Effects Movies:  
*Independence Day* \*  
*Dragonheart*  
*Twister*

*Mission Impossible*  
*The Rock*  
*Star Trek: First Contact*

*James and the Giant Peach* combines stop motion and computer animation techniques.

Disney's *Hunchback of Notre Dame* has 3D confetti, crowds, and architectural details.

Warner Bros.'s *Space Jam* features the Looney Tunes characters.

*The Fight* by Acclaim Entertainment proves viability of mocap for character animation.

*Joe's Apartment*  
*Roach Rally* by Blue Sky Productions.

Nintendo's *Super Mario 64* (N64),  
Capcom's *Resident Evil* (PS),  
Namco's arcade *Soul Edge*.  
Core Design's *Tomb Raider*.

Dreamworks buys an interest in *Pacific Data Images*.  
Disney buys *Dream Quest Images*.  
Fox purchases *VIFX*.

Microsoft releases *Windows 95*.

Visual Effects Society (VES) is founded.

Hanna-Barbera's *Dexter's Laboratory* and *The Real Adventures of Jonny Quest* series debut on Cartoon Network.

Warner Bros. releases *Superman: The Animated Series*.

(1997)

Pixologic opens in Los Angeles, Calif., and releases *ZBrush*.

Visual Effects Movies:  
*Titanic* \*  
*The Lost World: Jurassic Park*  
*Starship Troopers*

*Air Force One*  
*Alien: Resurrection*  
*Batman & Robin*  
*Con Air* / *Contact*  
*Dante's Peak*  
*The Fifth Element*  
*Flubber*  
*Mars Attacks!*  
*Men in Black*  
*Spawn* / *Volcano*

*Princess Mononoke* by Hayao Miyazaki opens in Japan (U.S. in '99).

Hydra sequence and morphed clouds in Disney's *Hercules*.

Don Bluth's *Anastasia*

*I Married a Strange Person* by Bill Plympton

*Megasónicos* is first European 3D computer-animated feature.

Pixar's *Geri's Game* by Jan Pinkava wins AMPAS short award.

*Virtual Andre* commercial by Digital Domain uses mocap.

Namco's *Soul Blade* weapon-fighting game.

Activision's *Mech Warrior* (PS). Rare's *Golden Eye 007* (N64).

Capcom's *Street Fighter III* and Namco's *Tekken III* to arcades.

Nvidia launches a 128-bit Direct3D processor.

News Corp. Fox buys *Blue Sky Studios*.

Sony introduces the HDCAM format.

*South Park* and *King of the Hill* premiere on MTV and Fox. HB's *Cow and Chicken* and *Johnny Bravo* debut on Cartoon Network.

Mainframe's *ReBoot* is early all-CG TV series.

Visual Effects Movies:  
*What Dreams May Come* \*  
*Mighty Joe Young*  
*Armageddon*

*Deep Impact*  
*Deep Rising*  
*Godzilla*  
*Lost in Space*  
*Mouse Hunt*  
*Pleasantville*  
*Small Soldiers*  
*Sphere* / *The X Files*

Disney/Pixar's *A Bug's Life* and DreamWorks/PDI's *ANTZ* present all-CG insect worlds.

CG Hun crowd simulation and CG props in Disney's *Mulan*

Stylized characters in DW's *Prince of Egypt*

Nickelodeon's low-budget *Rugrats Movie* is box-office success.

WB releases *Quest for Camelot*.

S. Kon's *Perfect Blue*  
*Cowboy Bebop* AKA *Kaubôï bibappu*

*Kirikou et la Sorcière*, by Michel Ocelot

Chris Wedge's *Bunny* wins AMPAS Award.

*Bingo* by Chris Landreth explores the absurd and neo-Dada theater.

Namco's *Tekken 3* (PS),  
Nintendo's *Legend of Zelda: Ocarina of Time* (N64), *Quake 2* for PC

Sega releases the Dreamcast platform.

*Double Negative* opens in London, *Realviz* in France. Avid buys Softimage.

Alias/Wavefront's *Maya*

*Rolie Polie Olie* all-CG 3D series premieres on The Disney Channel.

Hanna-Barbera's *The Powerpuff Girls* debut on Cartoon Network.

Kodak's *SFX 200T* film

Visual Effects Movies:  
*The Matrix* \*  
*Star Wars Episode I—The Phantom Menace*  
*Stuart Little*

*End of Days*  
*Fight Club*  
*The Mummy*  
*Sleepy Hollow*  
*Wild Wild West*

*Toy Story 2* takes Buzz and Woody to new levels of comedic and technical achievement.

Disney's *Fantasia 2000* in IMAX, with 3D CG.

Fresh animation style and NPR rendering in Brad Bird's *Iron Giant*.

2D brushstrokes recreated on 3D geometry in Disney's *Tarzan*.

*South Park: Bigger, Longer & Uncut*, uses 3D billboard technique.

*Le Château des Singes*, by Jean-F. Laguionie.

Daniel Robichaud's *Tightrope*, playful jester confronts suit.

Bjork's *All is Full of Love* music video.

NPR rendering and surreal comedy of spatial errors in PDI's *Fishing and Spatial Frames*

*Fiat Lux* by Paul Debevec, a landmark in image-based rendering  
Piotr Karwas' *The Mask* receives first SIGGRAPH Jury Honors award.

SGI's *Pentium* workstations. Autodesk buys *Discreet Logic*.

Framestore's *Walking with Dinosaurs*.

Fox's *Futurama* debut. WB's *Batman Beyond*, Toei Animation's *Digimon Adventure*

*Star Wars: Episode I, Tarzan*, and Miramax's *An Ideal Husband*, early digital cinema.

## Early 2000s Timeline of Computer Animation and Visual Effects

2000	2001	2001 (cont.)	2002	2002 (cont.)
<p>Visual Effects Movies: <i>Gladiator</i> * <i>Hollow Man</i> <i>The Perfect Storm</i></p> <p>102 <i>Dalmatians</i> <i>The Adventures of Rocky &amp; Bullwinkle Cast Away</i> <i>The Cell</i> / <i>Dinosaur</i> <i>Dr. Seuss' How the Grinch Stole Christmas</i> <i>Mission: Impossible 2</i> <i>Mission to Mars</i> <i>O Brother Where Art Thou?</i> <i>Pitch Black</i> <i>Red Planet</i> / <i>X-Men</i></p> <p>Disney's <i>Dinosaur</i> combines live action backgrounds with realistic 3D computer animated characters.</p> <p>Aardman Studio/DreamWorks stop-motion <i>Chicken Run</i></p> <p>DreamWorks' <i>The Road to El Dorado</i></p> <p>Don Bluth's <i>Titan A.E.</i></p> <p>Disney's <i>Emperor's New Groove</i> and <i>The Tigger Movie</i></p> <p>Nickelodeon's <i>Rugrats in Paris</i></p> <p>Nintendo's <i>Pokemon The Movie 2000</i> and Toei Animation's <i>Digimon: The Movie</i></p> <p>Pixar's <i>For the Birds</i> wins AMPAS award.</p> <p><i>Onimusha</i> wins Best Short at SIGGRAPH.</p> <p><i>Alien Song</i> is widely viewed on the Web.</p> <p>Debut of <i>PlayStation 2</i>, <i>Xbox</i>, and <i>Gamecube</i>.</p> <p>Maxis releases <i>SimCity</i>, wins first GDC Best Game Award.</p> <p>Intel's <i>Pentium 4</i> debuts at 1.5 GHz.</p> <p>Nvidia's <i>GeForce2</i>, per-pixel shading GPU <i>SoftimageXSI</i> released.</p> <p>Links <i>DigiWorks</i> opens in Tokyo.</p>	<p>Visual Effects Movies: <i>The Lord of the Rings: The Fellowship of the Ring</i> * <i>Artificial Intelligence Pearl Harbor</i></p> <p><i>Aliens vs. Predator 2</i> <i>Black Hawk Down</i> <i>Cats &amp; Dogs</i> <i>Donnie Darko</i> <i>Enemy at the Gates</i> <i>Evolution</i> <i>The Fast and the Furious</i> <i>Harry Potter and the Sorcerer's Stone</i> <i>Jurassic Park III</i> <i>Lara Croft Tomb Raider</i> <i>Monkeybone</i> <i>Moulin Rouge!</i> <i>The Mummy Returns</i> <i>Ocean's Eleven</i> <i>Planet of the Apes</i> <i>Shaolin Soccer</i> AKA <i>Siu lam yuk kau</i> <i>Spy Kids</i> <i>Swordfish</i></p> <p>The AMPAS creates new category for Best Animated Feature.</p> <p><i>Shrek</i> combines irreverent comedy with cutting-edge rendering, wins AMPAS Animated Feature first award.</p> <p>Pixar's <i>Monsters, Inc.</i> story turns the tables on who scares who.</p> <p>Nickelodeon's <i>Jimmy Neutron Boy Genius</i> delivers using off-the-shelf software and below-average budget.</p> <p>Square's <i>Final Fantasy: The Spirits Within</i> displays dazzling CG technique but fails to capture the mainstream box office.</p> <p>Mainframe motion-captures American Ballet Theater dancers to animate Mattel's all-CG DTV <i>Barbie in the Nutcracker</i>.</p> <p><i>Metropolis</i>, anime directed by Rintaro</p> <p>Mamoru Oshii's <i>Avalon</i></p>	<p>Animated Movies: <i>Shrek</i> * <i>Jimmy Neutron Boy Genius</i> <i>Monsters, Inc.</i></p> <p><i>Atlantis: The Lost Empire</i> <i>Avalon</i> <i>Final Fantasy: The Spirits Within</i> <i>Marco Polo: Return to Xanadu</i> <i>Mutant Aliens</i> <i>Osmosis Jones</i> <i>The Prince of Light</i> <i>Recess: School's Out</i> <i>The Trumpet of the Swan</i> <i>Waking Life</i></p> <p>Pixar short <i>Mike's New Car</i> by Pete Docter and Roger Gould.</p> <p>Van Phan's <i>Values Best Short</i> at SIGGRAPH</p> <p>Sega discontinues <i>Dreamcast</i> platform.</p> <p>Game Developers Choice Awards (GDC) created by the International Game Developers Association (IGDA).</p> <p>Rockstar's <i>Grand Theft Auto III</i> wins GDC Best Game Award.</p> <p>Lionhead Studios' <i>Black &amp; White</i>; Bungie Studios' <i>Halo: Combat Evolved</i>; Sony's <i>Ico</i>; Remedy's <i>Max Payne</i>.</p> <p>Framestore and CFC merge in London. <i>La Maison</i> opens in Paris.</p> <p><i>GeForce3</i>, Nvidia's programmable GPU.</p> <p>Intel releases 64-bit <i>Itanium</i> processor.</p> <p>Cartoon Network's <i>Samurai Jack</i> series. WB's <i>Justice League</i>.</p> <p>Foundation Imaging completes a US, \$20 million, 26-episode CG series <i>Dan Dare: Pilot of the Future</i> based on the British 1950s comic book hero.</p>	<p>Visual Effects Movies: <i>The Lord of the Rings: The Two Towers</i> * <i>Spiderman</i> <i>Star Wars: Episode II - Attack of the Clones</i></p> <p>28 Days Later... <i>Aliens vs. Predator 2: Primal Hunt</i> <i>Astérix &amp; Obélix: Mission Cléopâtre</i> <i>Blade 2</i> <i>Clockstoppers</i> <i>Die Another Day</i> <i>Eight Legged Freaks</i> <i>Harry Potter and the Chamber of Secrets</i> <i>Hero</i> AKA <i>Ying xiong</i> <i>Men in Black 2</i> <i>Minority Report</i> <i>Panic Room</i> <i>Reign of Fire</i> <i>Resident Evil</i> <i>Returner</i> AKA <i>Ritana</i> <i>The Ring</i> <i>Scooby-Doo</i> <i>The Scorpion King</i> <i>Signs</i> / <i>Solaris</i> <i>Spy Kids 2: Island of Lost Dreams</i> <i>Star Trek: Nemesis</i> <i>Stuart Little 2</i> <i>The Time Machine</i> xXx</p> <p><i>The Lord of the Rings 2</i> combines keyframe techniques and performance capture to animate the <i>Gollum</i> character, superb crowd simulation software.</p> <p><i>Star Wars: Episode II</i> is shot on HD video with blue screen and virtual characters.</p> <p>Robert Rodriguez's <i>Spy Kids 2</i> uses HD and desktop production.</p> <p>Hayao Miyazaki's <i>Spirited Away</i> wins AMPAS award with fantastic story.</p> <p>Fox's <i>Ice Age</i> by Chris Wedge mixes physical comedy with refined ray tracing rendering.</p> <p>Mattel's direct-to-video <i>Barbie as Rapunzel</i></p>	<p>Animated Movies: <i>Spirited Away</i> * <i>Ice Age</i> <i>Lilo &amp; Stitch</i> <i>Spirit: Stallion of the Cimarron</i> <i>Treasure Planet</i></p> <p><i>Hey Arnold!</i> <i>The Living Forest</i> AKA <i>El bosque animado</i> <i>Mutant Aliens</i> <i>The Powerpuff Girls First Feature</i> <i>Return to Never Land</i> <i>The Wild Thornberrys</i></p> <p>Disney's <i>Lilo &amp; Stitch</i> pairs Hawaiian girl and alien pet, luscious retro watercolors.</p> <p><i>The ChubbChubbs</i> wins AMPAS Award.</p> <p><i>The Cathedral</i> is Best Short at SIGGRAPH.</p> <p>Retro Studios' <i>Metroid Prime</i> wins GDC Best Game. Digital Illusions' <i>Battlefield 1942</i>, Rockstar North's <i>Grand Theft Auto: Vice City</i>, Ubisoft's <i>Tom Clancy's Splinter Cell</i>; EA's <i>Medal of Honor: Allied Assault</i>; Square Soft's <i>Kingdom Hearts</i>; Animal Crossing; Oddworld's <i>Munch's Odyssey</i>.</p> <p>Nvidia's Cg programming language.</p> <p>Apple Computer buys Nothing Real's <i>Shake</i>.</p> <p>Mill Film and <i>The Secret Lab</i>, Disney's VFX group, close.</p> <p>Massive Software opens in Wellington, N.Z.; <i>Sony Pictures Animation</i> and <i>Luxology (Modo)</i> in California.</p> <p>Framestore/CFC's <i>Dinotopia</i> TV series.</p> <p>WB releases <i>Baby Looney Tunes</i> and <i>Mucha Lucha!</i> series.</p>



## Early 2000s Timeline of Computer Animation and Visual Effects

2003	2003 (cont.)	2004	2004 (cont.)	2005
<p>Visual Effects Movies: <i>The Lord of the Rings: The Return of the King</i> * <i>Master and Commander: The Far Side of the World</i> <i>Pirates of the Caribbean: The Curse of the Black Pearl</i></p> <p>2 Fast 2 Furious Bad Boys 2 Charlie's Angels: Full Throttle Daredevil The Haunted Mansion Hulk / The Italian Job Kangaroo Jack Lara Croft: The Cradle of Life The Last Samurai The League of Extraordinary Gentlemen Looney Tunes: Back in Action The Matrix: Reloaded The Matrix: Revolutions Spy Kids 3: Game Over Terminator 3: Rise of the Machines X2: X-Men United</p> <p>The Visual Effects Society holds its first awards competition, www.ves.org. <i>The Lord of the Rings: The Two Towers</i> wins in multiple categories.</p> <p>BioWare's <i>Star Wars: Knights of the Old Republic</i> wins GDC Best Game award.</p> <p>Infinity Ward's <i>Call of Duty</i>, Ubisoft's <i>Prince of Persia: The Sands of Time</i> and <i>Uru: Ages Beyond Myst</i>, Nintendo EAD's <i>The Legend of Zelda: The Wind Waker</i></p> <p>Nokia's N-Gage combines a mobile telephone and handheld game system.</p> <p>Sony's <i>HDCAM-SR</i> format for HD video.</p>	<p>Animated Features: <i>Finding Nemo</i> * <i>Brother Bear</i> <i>Les Triplettes de Belleville</i></p> <p><i>The Animatrix</i> (DTV) <i>Bionicle: Mask of Light</i> (DTV) <i>El Cid, The Legend</i> AKA <i>El Cid: La leyenda</i> <i>Jester Till</i> AKA <i>Till Eulenspiegel</i> <i>The Jungle Book 2</i> <i>Kaena: The Prophecy</i> AKA <i>Kaena: La prophétie</i> <i>Millenium Actress</i> AKA <i>Sennen joyû</i> <i>Piglet's Big Movie</i> <i>Pokemon Heroes</i> <i>The Rain Children</i> AKA <i>Les Enfants de la pluie</i> <i>Raining Cats and Frogs</i> AKA <i>La Prophétie des grenouilles</i> <i>Rugrats Go Wild!</i> <i>Sinbad: Legend of the Seven Seas</i> <i>Sky Blue</i> AKA <i>Wonderful Days</i> <i>Tokyo Godfathers</i></p> <p>Pixar's visually spectacular underwater adventure <i>Finding Nemo</i> leads animated features. Korean <i>Sky Blue</i> has dazzling looks but opaque storytelling. Some computer animation in <i>Les Triplettes de Belleville</i>, a traditional production with original style.</p> <p><i>Harvie Krumpet</i> by Adam Elliot wins AMPAS Short Award.</p> <p>Pixar's <i>Boundin'</i>, Disney's <i>Destino</i> (inspired by Salvador Dalí's designs), and Blue Sky's <i>Gone Nutty</i>.</p> <p>WB releases <i>Xiaolin Showdown</i> and <i>Star Wars: Clone Wars</i> TV series.</p>	<p>Visual Effects Movies: <i>Spider-Man 2</i> * <i>Harry Potter and the Prisoner of Azkaban</i> <i>I, Robot</i></p> <p><i>Around the World in 80 Days</i> <i>The Aviator</i> <i>AVP: Alien vs. Predator</i> <i>Blade: Trinity</i> <i>Catwoman</i> <i>The Chronicles of Riddick</i> <i>The Day After Tomorrow</i> <i>Eternal Sunshine of the Spotless Mind</i> <i>Hellboy</i> <i>House of Flying Daggers</i> AKA <i>hí mian mai fu</i> <i>Kill Bill-Vol. 2</i> <i>Kung Fu Hustle</i> AKA <i>Kung fu</i> <i>Lemony Snicket's A Series of Unfortunate Events</i> <i>National Treasure</i> <i>Night Watch</i> AKA <i>Nochnoy dozor</i> <i>The Passion of the Christ</i> <i>Renegade</i> AKA <i>Blueberry</i> <i>Resident Evil: Apocalypse</i> <i>Sky Captain and the World of Tomorrow</i> <i>Thunderbirds</i> <i>Troy</i> / <i>Van Helsing</i> <i>The Village</i></p> <p>Valve Software's <i>Half-Life 2</i> wins GDC Best Game Award.</p> <p>Criterion Games/EA's <i>Burnout 3: Takedown</i>; Rockstar North's <i>Grand Theft Auto: San Andreas</i>; Namco's <i>Katamari Damacy</i>; Blizzard Entertainment's <i>World of Warcraft</i>; Nokia's <i>Ashen</i></p> <p>Nintendo releases <i>Nintendo DS</i>; Sony's <i>PlayStation Portable</i> (PSP) released in Japan.</p> <p>WB releases <i>Justice League Unlimited</i> and <i>The Batman</i> TV series.</p>	<p>Animated Movies: <i>The Incredibles</i> * <i>Shrek</i> AKA <i>Shrek 2</i></p> <p><i>Appleseed</i> AKA <i>Appurushido</i> <i>Los Balunis</i> (DTV) <i>Bionicle 2: Legends of Metru Nui</i> (DTV) <i>Ghost in the Shell 2: Innocence</i> <i>Hair High</i> <i>Home on the Range</i> <i>Howl's Moving Castle</i> AKA <i>Hauru no ugoku shiro</i> <i>Immortal</i> AKA <i>Immortel (ad vitam)</i> <i>Pinocchio 3000</i> <i>The Polar Express</i> <i>Popeye's Voyage: The Quest for Pappy</i> (DTV) <i>The Snurks</i> AKA <i>Back to Gaya</i> <i>Steamboy</i> AKA <i>Suchimubô</i> <i>Teacher's Pet</i> <i>Team America: World Police</i> <i>Terkel in Trouble</i> AKA <i>Terkel i knibe</i></p> <p>Chris Landreth's <i>Ryan</i> wins AMPAS Award.</p> <p>Also nominated for Best Short: <i>Birthday Boy</i> by Sejong Park and A. Gregory, <i>Blur's Gopher Broke</i>, <i>Guard Dog</i> by Bill Plympton, and Disney's <i>Lorenzo</i>.</p> <p>Panavision's <i>Genesis</i> HD camera.</p> <p>HDV format uses 1/4 in. DV tape developed by JVC and Sony.</p> <p>Canon XL-2 prosumer 3-CCD camera</p> <p>Autodesk buys <i>Kaydara</i>, with Motion Builder and FBX file interchange format.</p> <p>Thomson buys <i>The Moving Picture Company</i> (MPC).</p>	<p>Visual Effects Movies: <i>King Kong</i> * <i>The Chronicles of Namia: The Lion, the Witch and the Wardrobe</i> <i>War of the Worlds</i></p> <p><i>Aeon Flux</i> <i>Batman Begins</i> <i>Constantine</i> <i>Doom</i> <i>Fantastic Four</i> <i>Harry Potter and the Goblet of Fire</i> <i>The Island</i> <i>Jarhead</i> <i>Kingdom of Heaven</i> <i>Land of the Dead</i> <i>Empire of the Wolves</i> AKA <i>L'Empire des loups</i> <i>Memoirs of a Geisha</i> <i>Negotiator: Mashita Masayoshi</i> AKA <i>Kôshônin Mashita Masayoshi</i> <i>The Promise</i> AKA <i>Wu ji</i> <i>The Ring Two</i> <i>Shinobi</i> <i>Sin City</i> <i>Star Wars: Episode III- Revenge of the Sith</i></p> <p>Microsoft introduces the <i>Xbox 360</i>, capable of rendering 500 million triangles per second, and Nintendo releases the <i>Wii</i>.</p> <p>Sony's <i>Shadow of the Colossus</i> wins Best Game GDC award.</p> <p>Nintendo EAD's <i>Animal Crossing: Wild World</i>, Sony's <i>God of War</i>, Harmonix Music Systems/RedOctane <i>Guitar Hero</i>; Lionhead Studios/Activision's <i>The Movies</i></p>

2005 (cont.)	2006	2006 (cont.)	2007	2007 (cont.)
<p>Animated Features: <i>Wallace &amp; Gromit in the Curse of the Were-Rabbit</i> *</p> <p><i>Howl's Moving Castle</i> Tim Burton's <i>Corpse Bride</i></p> <hr/> <p><i>Bionicle 3: Web of Shadows</i> (DTV)</p> <p><i>Chicken Little</i> <i>Dragon Blade</i></p> <p><i>Final Fantasy VII: Advent Children</i> <i>Gisaku</i></p> <p><i>Hoodwinked!</i> <i>Madagascar</i></p> <p><i>Midsummer Dream</i> AKA <i>El sueño de una noche de San Juan</i></p> <p><i>Olentzero y el tronco mágico</i></p> <p><i>Pooh's Heffalump Movie</i></p> <p><i>Robots</i> <i>Thru the Moebius Strip</i> <i>Valiant</i></p> <p><i>Madagascar</i> makes great use of squash and stretch in computer-animated cartoon characters.</p> <p><i>Hoodwinked!</i> features limited animation but also humorous gags, and surprises at box office.</p> <p><i>The Moon and the Son: An Imagined Conversation</i> by John Canemaker and P. Stern wins AMPAS Best Short Award.</p> <p>Also nominated for Best Short: <i>9</i> by Shane Acker, and Pixar's <i>One Man Band</i>.</p> <p>Canon XL-H1 HDV camera records on 1/4 in. videotape.</p> <p>YouTube launches as a video sharing website.</p> <p>WB releases <i>Loonatics Unleashed</i> and <i>Krypto the Superdog</i> series.</p>	<p>Visual Effects Movies: <i>Pirates of the Caribbean: Dead Man's Chest</i> *</p> <p><i>Poseidon</i> <i>Superman Returns</i></p> <hr/> <p><i>Apocalypto</i> <i>Arthur and the Invisibles</i> AKA <i>Arthur et les Minimoys</i> <i>Battle of Wits</i> AKA <i>Muk gong</i> <i>Blood Diamond</i> <i>Charlotte's Web</i> <i>Children of Men</i> <i>Curse of the Golden Flower</i> AKA <i>Man cheng jin dai huang jin jia</i> <i>The Da Vinci Code</i> <i>Day Watch</i> AKA <i>Dnevnoy dozor</i> <i>Eragon</i> <i>The Fast and the Furious: Tokyo Drift</i> <i>Final Destination 3</i> <i>Flags of Our Fathers</i> <i>The Fountain</i> <i>The Host</i> AKA <i>Gwoemul</i> <i>Lady in the Water</i> <i>Letters from Iwo Jima</i> <i>Mission: Impossible III</i> <i>Pan's Labyrinth</i> AKA <i>El laberinto del fauno</i> <i>Rescue Dawn</i> <i>The Science of Sleep</i> AKA <i>La Science des rêves</i> <i>Sinking of Japan</i> AKA <i>Nihon chinbotsu</i> <i>Snakes on a Plane</i> <i>Ultraviolet</i> <i>World Trade Center</i> <i>X-Men: The Last Stand</i> AKA <i>X-Men 3</i></p> <p>The Walt Disney Company buys Pixar.</p> <p>Autodesk buys Alias.</p> <p>Nvidia's free hardware renderer <i>Gelato</i>.</p> <p>Apple Computer switches to Intel CPUs.</p> <p>CPU maker AMD merges with graphics card maker ATI.</p> <p>Google buys YouTube.</p>	<p>Animated Features: <i>Happy Feet</i> *</p> <p><i>Cars</i> <i>Monster House</i></p> <hr/> <p><i>A Scanner Darkly</i> <i>Ant Bully</i> <i>Azur &amp; Asmar</i> <i>The Barnyard</i> <i>Cristobal Molón</i> <i>Doogal</i> <i>Everyone's Hero</i> <i>Flushed Away</i> <i>Free Jimmy</i> <i>Happily N'Ever After</i> <i>Hui Buh: The Castle Ghost</i> AKA <i>Hui Buh - Das Schlossgespenst</i> <i>Ice Age: The Meltdown</i> <i>Impy's Island</i> AKA <i>Urmel aus dem Eis</i> <i>The Land Before Time XII: The Great Day of the Flyers</i> (DTV)</p> <p><i>Open Season</i> <i>Over the Hedge</i> <i>Paprika</i> <i>Renaissance</i> <i>Tales from Earthsea</i> AKA <i>Gedo senki</i> <i>Tekkonkinkreet</i> AKA <i>Tekon kinkurito</i> <i>The Ugly Duckling and Me!</i> AKA <i>Den Grimme ælling og mig</i> <i>The Wild</i></p> <p>Pixar's short <i>Lifted</i>.</p> <p>Sony introduces the PlayStation 3.</p> <p>Epic Games' <i>Gears of War</i> wins Best Game GDC award.</p> <p>Nintendo's <i>Wii Sports</i>; Clover Studio/Capcom's <i>Okami</i>; Bethesda Game Studios/2K Games' <i>The Elder Scrolls IV: Oblivion</i>; Nintendo EAD's <i>The Legend of Zelda: Twilight Princess</i>; Ubisoft's <i>Rayman Raving Rabbids</i></p> <p>Warner Bros. releases <i>Tom and Jerry Tales</i> and <i>Legion of Super Heroes</i> series.</p>	<p>Visual Effects Movies: <i>The Golden Compass</i> *</p> <p><i>Pirates of the Caribbean: At World's End</i> <i>Transformers</i></p> <hr/> <p><i>28 Weeks Later</i> <i>30 Days of Night</i> <i>300</i> <i>4: Rise of the Silver Surfer</i> <i>Alvin and the Chipmunks</i> AVPR: <i>Aliens vs Predator-Requiem</i> <i>Blades of Glory</i> <i>The Bourne Ultimatum</i> <i>Bridge to Terabithia</i> <i>Enchanted</i> <i>Evan Almighty</i> <i>Ghost Rider</i> <i>I Am Legend</i> <i>The Kite Runner</i> <i>Live Free or Die Hard</i> <i>Ocean's Thirteen</i> <i>Resident Evil: Extinction</i> AKA <i>Resident Evil 3</i> <i>Spider-Man 3</i> <i>Sunshine</i> <i>Sweeney Todd: the Demon Barber of Fleet Street</i> <i>There Will Be Blood</i> <i>TMNT</i> AKA <i>Teenage Mutant Ninja Turtles: Immortal</i> <i>We Own the Night</i> <i>The Water Horse: Legend of the Deep</i> <i>Zodiac</i></p> <p>Valve's <i>Portal</i> wins GDC Best Game award.</p> <p>Ubisoft's <i>Assassin's Creed</i>; 2K Games' <i>BioShock</i>; Crytek/EA's <i>Crysis</i>; Infinity Ward/Activision's <i>Call of Duty 4: Modern Warfare</i>; Valve's <i>Half-Life 2: Episode 2</i>; Harmonix/MTV Games' <i>Rock Band</i>; Nintendo EAD's <i>Super Mario Galaxy</i></p> <p>Nokia's N-Gage gaming capabilities available to mobile phones.</p>	<p>Animated Features: <i>Ratatouille</i> *</p> <p><i>Persepolis</i> <i>Surf's Up</i></p> <hr/> <p><i>Bee Movie</i> <i>Beowulf</i> <i>Donkey Xote</i> <i>Appleseed Saga: Ex Machina</i> AKA <i>Ekusu makina</i> <i>Evangelion: 1.0 You Are (Not) Alone</i> AKA <i>Evangelion shin gekijōban: Jo</i> <i>Fear(s) of the Dark</i> AKA <i>Peur(s) du noir</i> <i>Jungo Goes Bananas</i> AKA <i>Jungledyret Hugo: Fræk, flabet og fri</i> <i>The Land Before Time XIII: The Wisdom of Friends</i> (DTV)</p> <p><i>Lissi and the Wild Emperor</i> AKA <i>Lissi und der wilde Kaiser</i> <i>Meet the Robinsons</i> <i>Nocturna</i> <i>The Secret of the Magic Gourd</i> AKA <i>Bao hu lu de mi mi</i> <i>Shrek the Third</i> <i>The Simpsons Movie</i> <i>Vexille</i> AKA <i>Bekushiru: 2077 Nihon sakoku</i></p> <p>BUF Compagnie's <i>Même les pigeons vont au paradis</i> (Even Pigeons Go to Heaven) <i>Oktapodi</i> is Best of Show at SIGGRAPH.</p> <p>The Red One HD camera is released.</p> <p>Dalsa introduces the Origin II camera.</p> <p>Nvidia buys Mental Images.</p> <p>Autodesk buys Skymatter's Mudbox.</p>

Visual Effects

The Curse of the Were-Rabbit

Benjamin

The Da Vinci Code

Iron Man

Asterix

Game

aux

Australia

Babylon

Bedtime

City of

The Ch

Narnia

Caspi

Cloverfi

The Day

Stood

Hancock

Harry Po

Half-B

Hellboy

Army

The Incre

Indiana J

Kingdom

Crystal

to the C

Earth

Jumper

The King

Beauty

saan me

The Mach

Kataude

The Mumm

the Drag

Pineapple

Quantum

Speed Race

The Spider

Chronicle

The Spirit

Starship Tr

Marauder

Tropic Thur

Vantage Po

Wanted

The X Files

Believe

You Don't M

the Zohan

Autodesk bu

and Softima

Vivendi buys

Activision.

Categories

VR Movies

Animated Features

Independent Shorts

Computer Games

Technology / Events

Visual Tech. Events

Television

## Late 2000s Timeline of Computer Animation and Visual Effects

2008	2008 (cont.)	2008/2009	2009/2010	2010/2012
<p>Visual Effects Movies: <i>The Curious Case of Benjamin Button</i> * <i>The Dark Knight</i> <i>Iron Man</i></p> <p><i>Asterix in the Olympic Games</i> AKA <i>Astérix aux jeux olympiques</i> <i>Australia</i> <i>Babylon A.D.</i> <i>Bedtime Stories</i> <i>City of Ember</i> <i>The Chronicles of Narnia: Prince Caspian</i> <i>Cloverfield</i> <i>The Day the Earth Stood Still</i> <i>Hancock</i> <i>Harry Potter and the Half-Blood Prince</i> <i>Hellboy II: The Golden Army</i> <i>The Incredible Hulk</i> <i>Indiana Jones and the Kingdom of the Crystal Skull</i> <i>Journey to the Center of the Earth</i> <i>Jumper</i> <i>The Kingdom and the Beauty</i> AKA <i>Kwong saan mei yan</i> <i>The Machine Girl</i> AKA <i>Kataude mashin gāru</i> <i>The Mummy: Tomb of the Dragon Emperor</i> <i>Pineapple Express</i> <i>Quantum of Solace</i> <i>Speed Racer</i> <i>The Spiderwick Chronicles</i> <i>The Spirit</i> <i>Starship Troopers 3: Marauder</i> (DTV) <i>Tropic Thunder</i> <i>Vantage Point</i> <i>Wanted</i> <i>The X-Files: I Want to Believe</i> <i>You Don't Mess with the Zohan</i></p> <p>Autodesk buys Realviz and Softimage.</p> <p>Vivendi buys Activision.</p>	<p>Animated Features: <i>Wall•E</i> * <i>Bolt</i> <i>Kung Fu Panda</i></p> <hr/> <p>\$9.99 <i>Agent Crush</i> <i>The Clone Wars</i> <i>Delgo</i> <i>Dr. Seuss' Horton Hears a Who!</i> <i>Dragon Hunters</i> AKA <i>Chasseurs de dragons</i> <i>Fly Me to the Moon</i> <i>Foodfight!</i> <i>Ghatothkach: Master of Magic</i> <i>Goat Story: The Old Prague</i> AKA <i>Kozi příběh–Pověsti staré Prahy</i> <i>Igor</i> <i>Idiots and Angels</i> <i>Journey to Saturn</i> AKA <i>Rejsen til Saturn</i> <i>Madagascar: Escape 2 Africa</i> <i>Mia and the Migoo</i> AKA <i>Mia et le Migoo</i> <i>Niko &amp; the Way to the Stars</i> AKA <i>Niko - Lentäjän poika</i> <i>Open Season 2</i> <i>Ponyo on the Cliff</i> AKA <i>Gake no ue no Ponyo</i> (Japan release) <i>The Sky Crawlers</i> AKA <i>Sukai kurora</i> <i>Space Chimps</i> <i>The Tale of Despereaux</i> <i>Waltz with Bashir</i></p> <p>Pixar's short <i>Presto</i></p> <p>Blu-ray Disc becomes the standard for high-capacity DVD.</p> <p>Sony Pictures releases <i>Hancock</i> feature movie in 4K digital projection.</p> <p>Cartoon Network releases <i>Star Wars: The Clone Wars</i>, a 3D CGI series produced by Lucasfilm Animation.</p> <p>WB's <i>Batman: The Brave and the Bold</i></p>	<p>Square Enix's <i>Chrono Trigger</i> (DS); Square Enix's <i>Crisis Core: Final Fantasy VII</i> (PSP); Lionhead Studios' <i>Fable II</i> (Xbox 360); Bethesda Game Studios' <i>Fallout 3</i> (Xbox 360/PS3/PC); Ubisoft's <i>Far Cry 2</i> (Xbox 360/PS3/PC); Epic's <i>Gears of War 2</i> (Xbox 360); Rockstar North's <i>Grand Theft Auto IV</i> (Xbox 360/PS3/PC); Mistwalker's <i>Lost Odyssey</i> (Xbox 360); Konami's <i>Metal Gear Solid 4</i> (PS3); Capcom's <i>Monster Hunter</i> (PSP); Nokia's <i>One</i>; Q Games' <i>Pixel Junk Eden</i> (PS3); Black Rock's <i>Pure</i> (Xbox 360/PS3/PC); Sony SCE's <i>Siren: Blood Curse</i> (PS3); Maxis' <i>Spore</i> (PC/Apple); Ironclad Games' <i>Sins of a Solar Empire</i> (PC); Nintendo's <i>Advance Wars: Days of Ruin</i> (DS); Sega's <i>Yakuza 2</i> (PS2)</p> <p>(2009)</p> <p>Visual Effects Movies Scheduled and/or in Production: 2012 <i>Angels &amp; Demons</i> <i>Arthur et la vengeance de Maltazard</i> <i>Avatar</i> <i>Enter the Void</i> <i>G.I. Joe: The Rise of Cobra</i> <i>Halo</i> <i>The Lovely Bones</i> <i>Shanghai / Sin City 2</i> <i>Transformers: Revenge of the Fallen</i> <i>Star Trek</i> <i>Terminator Salvation</i> <i>Where the Wild Things Are</i> <i>X-Men Origins: Wolverine</i> <i>The Wolfman</i></p>	<p>Animated Features Scheduled and/or in Production: 9 1906 <i>A Monster in Paris</i> AKA <i>Un monstre à Paris</i> <i>Astro Boy</i> <i>Chico &amp; Rita</i> <i>A Christmas Carol</i> <i>Cloudy with a Chance of Meatballs</i> <i>Coraline</i> <i>Evangelion: 2.0 You Can (Not) Advance</i> AKA <i>Evangerion shin gekijōban: Haice Age: Dawn of the Dinosaurs</i> AKA <i>Ice Age 3</i> <i>The Legend of Spyro: Monsters vs. Aliens</i> <i>Neanderthals</i> <i>Open Season 2</i> <i>Planet 51</i> <i>The Princess and the Frog</i> <i>Up</i></p> <p>(2010)</p> <p>Visual Effects Movies Scheduled and/or in Production: <i>Alice in Wonderland</i> <i>Arthur et la guerre des deux mondes</i> <i>The Chronicles of Narnia: The Voyage of the Dawn Treader</i> <i>Gears of War</i> <i>The Green Hornet</i> <i>Harry Potter and the Deathly Hallows I</i> <i>Iron Man II</i> <i>Jonny Quest</i> <i>Jurassic Park IV</i> <i>Kung Fu Hustle 2</i> <i>Lincoln</i> <i>Logan's Run</i> <i>Prince of Persia: The Sands of Time</i> <i>The Smurfs / Thor</i> <i>When Worlds Collide</i> <i>xXx: The Return of Xander Cage</i></p>	<p>Animated Features Scheduled and/or in Production: <i>The Bear and the Bow</i> <i>Cars 2</i> <i>Evangelion 3</i> <i>Gnomeo and Juliet</i> <i>Guardians of Ga'hoole</i> <i>Hoodwinked 2: Hood vs. Evil</i> <i>How to Train Your Dragon</i> <i>John Carter of Mars</i> <i>Rapunzel</i> <i>Shrek Goes Fourth</i> <i>Tim Burton's Alice in Wonderland</i> <i>The Tinker Bell: A Midsummer Storm</i> <i>Tintin</i> <i>Toy Story 3</i></p> <p>(2011/2012)</p> <p><i>The Avengers</i> <i>Bond 23</i> <i>Harry Potter and the Deathly Hallows II</i> <i>Interstellar</i> <i>Justice League: Mortal</i> <i>Pirates of the Caribbean 4</i> <i>Spiderman 4</i> <i>Superman: Man of Steel</i> <i>TR2N</i></p> <p>(2011/2012)</p> <p><i>King of the Elves</i> <i>Kung Fu Panda 2</i> <i>Madagascar 3</i> <i>Newt</i> <i>The Three Musketeers</i> <i>Tusker</i></p>