



# AUTODESK® 3DS MAX®

## Features by VERSION RELEASE

This document is not official Autodesk marketing or tech documentation. The original idea was to provide myself and others a means of quick access to feature-highlights for various releases of Autodesk 3ds Max going back in the last few years. This is NOT a full, comprehensive list of everything from any particular release, but simply a list of what I feel are "Significant 3ds Max Features by Release" (to drive discussions and demonstrations). - Gary M. Davis; Autodesk M&E

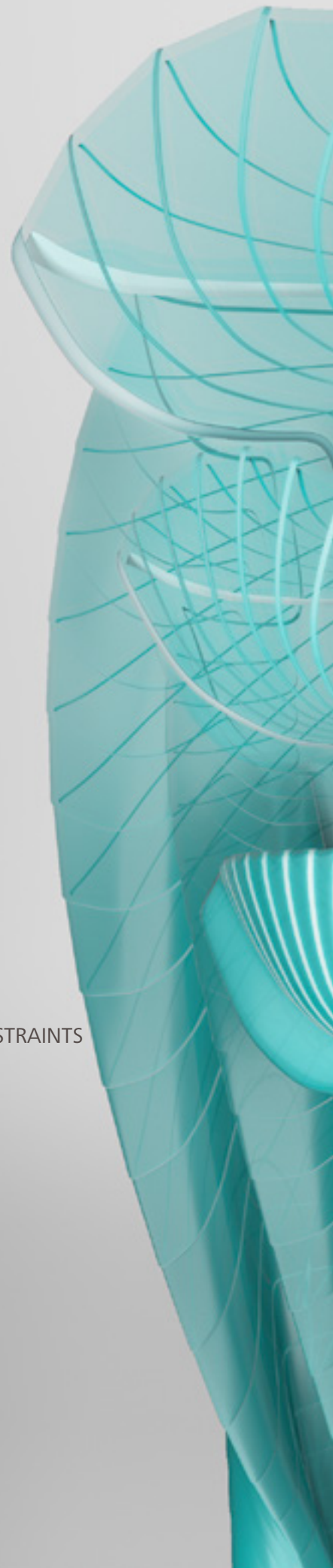
To request features for future releases of Autodesk 3ds Max, please visit the four (4) forums at: <http://3dsmaxfeedback.autodesk.com/>

## 2016

- MAX CREATION GRAPH (MCG)
- XREF RENOVATIONS
- ADAPTIVE OPENSUBDIV
- VISUAL CREASE SETS
- ALEMBIC GPU CACHING
- DESIGN WORKSPACE
- CUSTOM TEMPLATES SYSTEM
- PHYSICAL CAMERA (CHAOS GROUP)
- CAMERA SEQUENCER
- INCREASED VP SPEED
- MULTI-TOUCH SUPPORT
- SHADERFX ENHANCEMENTS
- NATIVE REVIT ENGINE
- IMPROVED SKETCHUP INTEROP
- SCENE EXPLORER ENHANCEMENTS
- PRE-SELECTION HIGHLIGHTING
- IRAY ENHANCEMENTS
- MENTAL RAY ENHANCEMENTS
- AUTODESK TRANSLATION FRAMEWORK (ATF) - INVENTOR CONSTRAINTS
- CREATIVE MARKET CONNECTION
- UNIFICATION TO SINGLE RELEASE
- NO SDK BREAK FROM 2015

### 2016 SURFS (SMALL USER REQUESTED FEATURES)

- REMOVE MISSING MAPS
- PAUSE MENTAL RAY
- CONVERT UNITS ON MERGE
- SELECTION PREVIEW OPTION
- OPENTYPE SUPPORT
- CUT TOOL OVERRIDES SNAPS
- SMOOTHING GROUP VISUALIZATION
- ASSIGN RENDERER DIALOG REVAMP
- OBJ MIRRORING RESOLVED
- KEYFRAMING AND FRAME RATES
- COLOR PICKING OTHER APPS
- OPEN GROUPS RECURSIVELY





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## Features by VERSION RELEASE

### 2015

- NATIVE RECAP POINT CLOUD SUPPORT
- PLACEMENT TOOL
- QUAD CHAMFER
- VP TEXTURE BAKING
- SHADERFX
- POPULATE 2.0
- PARTICLE FLOW
- ACTIVESHAD
- MENTAL RAY 3.12
- IRAY
- STEREO CAMERA
- STATE SETS
- ENHANCED SCENE EXPLORER
- ACCELERATED VIEWPORT PERFORMANCE
- PYTHON AND MAXPLUS

#### **2015 SATS (SMALL ANNOYING THINGS)**

- BACKBURNER; OVER 20 BUG FIXES
- PRESERVE UVS FOR INSET POLYGONS
- UNDO/REDO ON MAIN TOOLBAR
- SLIDE PARTIAL LOOPS IN SWIFT LOOPS
- ADAPTIVE VIEWPORT NAVIGATION FOR SMARTER ZOOMING, PANNING, AND ORBITING
- RENDER OUTPUT NAMING TOKENS AND PRESETS.
- PREVENT OBJECT CREATION ON HIDDEN LAYER
- PARTICLE VIEW; ZOOM TO CURSOR
- SUB-OBJECT ZOOMING IMPROVEMENTS





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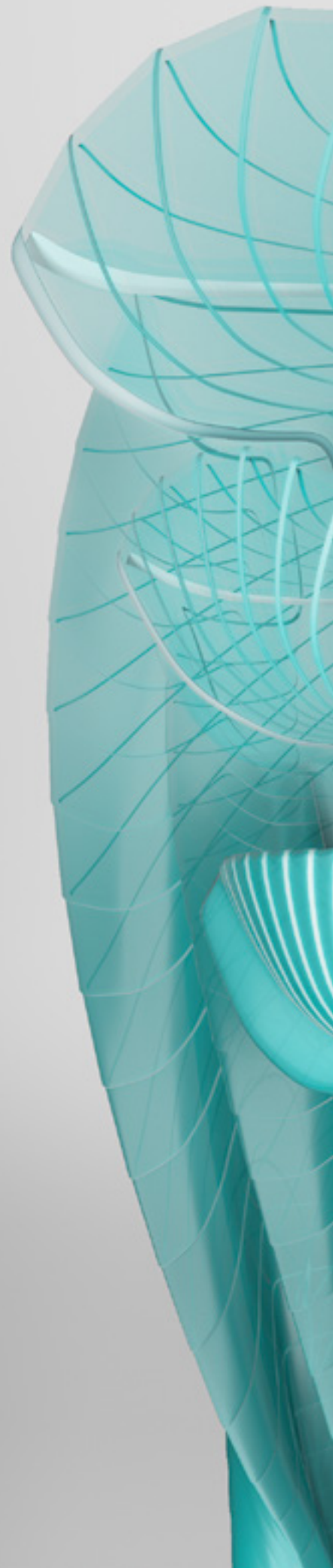
## Features by VERSION RELEASE

### 2014

- ENHANCED MENU SYSTEM
- SKIN PERFORMANCES
- DX11
- VECTOR MAPS SUPPORT
- POPULATE CROWDS
- PFLOW ENHANCEMENTS
  - DATA MANIPULATOR (CUSTOM OPERATORS)
  - MASSFX INTEGRATION
  - DISK CACHING & SELECTIVE CACHING
  - NEW BIRTH OPERATORS
- PERSPECTIVE MATCH
- 2D PAN/ZOOM
- CAT RIG SCALING AND SAVING MESH WITH RIG (\*.RG3).
- MEDIASYNCTEXT
- MENTAL RAY - STABILITY DOESN'T CRASH THE APPLICATION.
- IMAGE BASED LIGHTING (IBL)
- OPTION FOR NO FG
- STRINGS
- NEW AA METHOD
- IRAY 3.0 AND IRAY SHADER
- NO SDK BREAK FROM 2013
- REVIT FILE LINK: DAYLIGHT SYSTEM SUPPORT
- WINDOWS 8 SUPPORT
- HAIR SCRUFFLE
- VRML 64 BITS

#### **2014 FOCUS ON WORKFLOW (SATS)**

- CYCLE VIEWPORTS WITH HOTKEYS
- "X" FEATURE SEARCH
- ESCAPE AUTO-BACKUP
- ISOLATE OPTIONS
- MISSING PLUGINS MANAGEMENT
- UNWRAP PERFORMANCE





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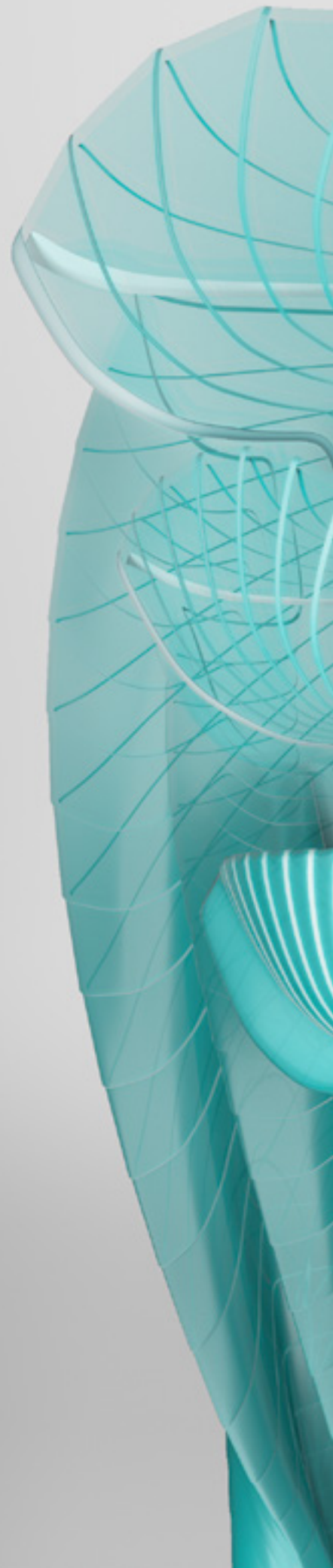
## Features by VERSION RELEASE

### 2013

- STATE SETS; SCENE MANAGEMENT AND RENDER PASS SYSTEM
- SLATE COMPOSITING EDITOR
- MEDIASync WITH ADOBE PHOTOSHOP & AFTER EFFECTS
- ACTIVESHade INTERACTIVE IRAY RENDERING
- MASSFX – MCLOTH, DYNAMIC RAGDOLL
- TABBED LAYOUTS
- CUSTOMIZABLE WORKSPACES
- TRACK VIEW RETIMING
- HUMANIK® INTEROPERABILITY WITH CAT
- ANIMATION STORE; REALTIME PREVIEW IN VP
- NITROUS & GRAPHITE - IBL, DOF, CLAY MODE
- GPOLY
- MAYA NAVIGATION OPTION
- .INTEROPERABILITY WITH REVIT
- DIRECTCONNECT SUPPORT
- .NET EXPOSURE OF THE 3DS MAX SDK

#### **2013 FOCUS ON WORKFLOW (SATS)**

- ENABLE VIEW PANNING/ZOOMING/ROTATING WHEN CUTTING POLYGONS AND CREATING OBJECTS/SPLINES
- DOUBLE CLICK EDGE TO SELECT LOOP
- ARRAY DIALOG NOW MODELESS!
- SLATE – GET FROM SELECTED, DOTTED DISPLAY ID
- IMAGE FILE DIALOG REMEMBERS LAST TYPE
- ADD FILE HISTORY TO IMPORT/EXPORT UI
- QUICKTIME I/O SUPPORT ON 64BIT
- SKIN - BONE LIST SORTING
- MOVE ISOLATE TOGGLE TO TOOL BAR
- OPEN ALL DIALOGS IN THEIR LAST LOCATION
- HOTKEY VIEW SWITCHING REMEMBERS LAST VIEW
- AUTOSAVE 'CLOCK' RESETS
- GRADIENT VIEWPORT BACKGROUND
- RESIZABLE CUI DIALOG







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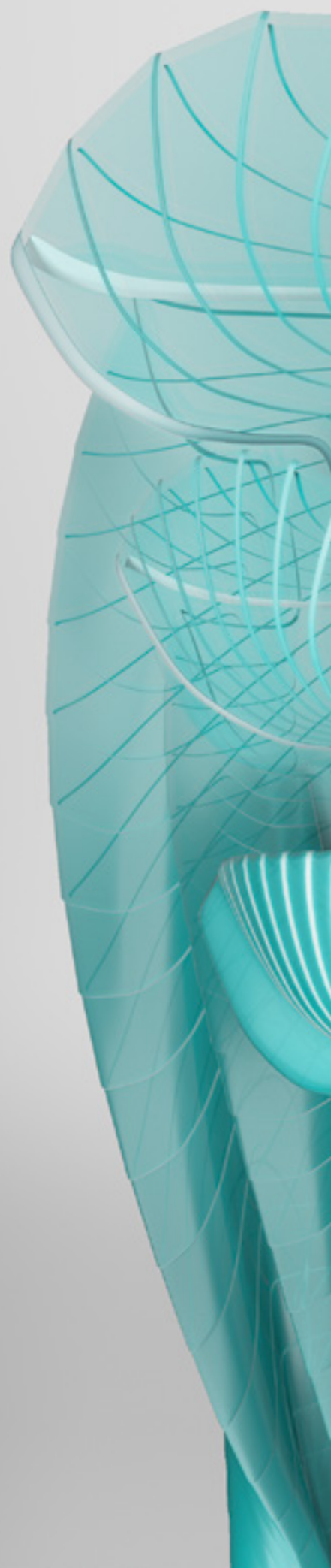
## Features by VERSION RELEASE

### 2012

- NITROUS GRAPHICS CORE
- SUBSTANCE PROCEDURAL TEXTURES
- MRIGIDS RIGID-BODY DYNAMICS
- IRAY RENDERER
- SINGLE-STEP SUITES INTEROPERABILITY
- ENHANCED UVW UNWRAPPING
- VECTOR DISPLACEMENT MAP SUPPORT
- SCULPTING AND PAINTING ENHANCEMENTS
- UNIFIED F-CURVE EDITOR
- STYLISTIC RENDERING
- ENHANCED FBX FILE LINK
- PROOPTIMIZER ENHANCEMENTS
- IMPROVED START-UP TIME AND MEMORY FOOTPRINT
- UI ENHANCEMENTS
- CADDY IMPROVEMENTS
- COPY MATERIAL LIBRARIES
- CADDIES UPDATE & OPTION FOR OLD DIALOGS
- SUN/SKY VISIBLE IN EXPOSURE PREVIEW
- MAX SCENES THUMBNAILS (WINDOWS 7)

### 2011

- SLATE MATERIAL EDITOR
- QUICKSILVER HARDWARE RENDERER
- LOCAL EDITS TO CONTAINERS
- GRAPHITE MODELING
- VIEWPORT CANVAS
- VIEWPORT DISPLAY
- SHIPS WITH 3DS MAX COMPOSITE (AKA AUTODESK TOXIK)
- IN-CONTEXT DIRECT MANIPULATION UI
- CAT INTEGRATION
- RIBBON CUSTOMIZATION
- MENTAL RAY 2011
- UPDATED OPEN EXR
- SAVE TO PREVIOUS RELEASE
- WINDOWS 7 SUPPORT
- FBX FILE LINK WITH REVIT
- NATIVE SOLIDS IMPORT/EXPORT
- AUTODESK MATERIAL LIBRARY
- GOOGLE SKETCHUP IMPORTER
- CLONE.DLU (LICENSED)



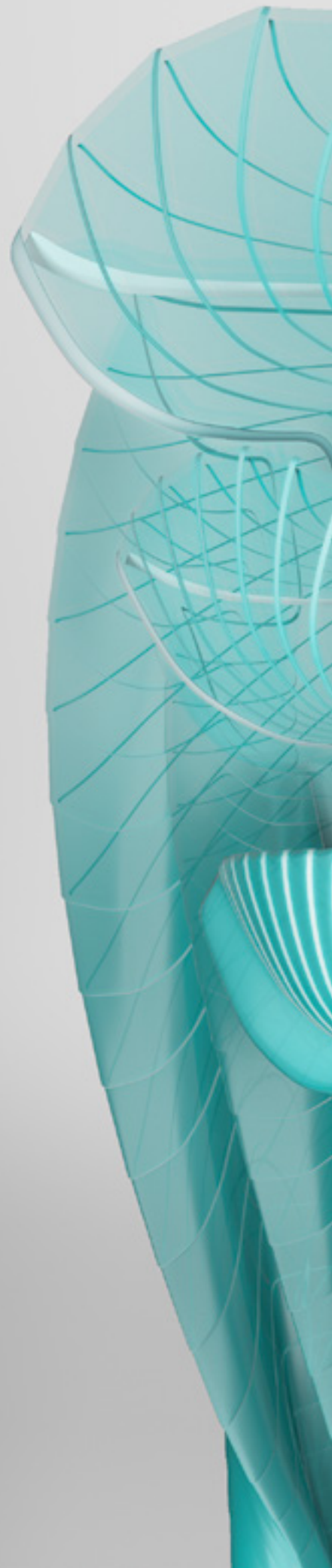


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## Features by VERSION RELEASE

### 2010

- VIEWPORT IMPROVEMENTS
- GRAPHITE MODELING RIBBON
- PROOPTIMIZER MODIFIER
- PROBOOLEAN
- QUADIFY MESH MODIFIER
- TRANSFORM TOOLBOX
- XVIEW
- CONTAINERS
- EXPANDED OBJ
- AUTOCAD 2010 DWG MESH
- THE SCENE EXPLORER
- ENHANCED AUTODESK FBX®
- VIEWPORT CANVAS
- RENDER SURFACE MAP
- MENTAL MILL
- NEW TOOLS IN EDIT UVWS DIALOG
- MULTI/SUB MAP
- OBJECT COLOR MAP
- DIRECTX - METASL SHADER
- RENDERED FRAME WINDOW SLIDERS
- NEW PHOTON MAP
- NEW FINAL GATHER CONTROLS
- IMPROVED BITMAP PAGING
- GAMMA CORRECTION
- PFLOW ADVANCED –& 100 PRESETS
- LINK CONSTRAINT ENHANCED
- PROSOUND .
- HAIR & CLOTH IMPROVEMENTS
- CS BIPED KNUCKLES



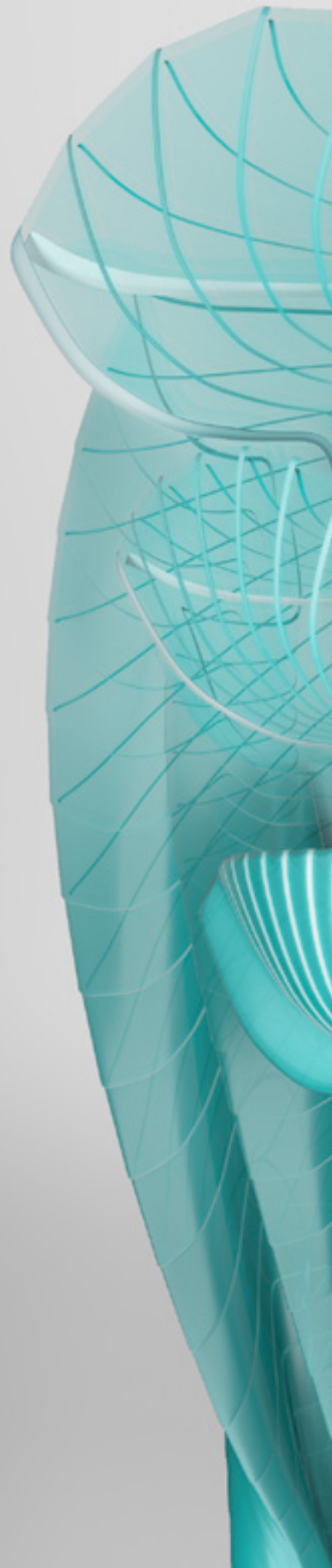


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## Features by VERSION RELEASE

### 2009

- UV SPLINE MAPPING
- PHOTOMETRIC LIGHTING ENHANCEMENTS
- UPDATED COMPOSITE MAP
- NEW COLOR CORRECT MAP
- REVIEW ENHANCEMENTS
- PROMATERIALS
- MENTAL RAY PROXY OBJECTS
- ENHANCED ACCESSIBILITY OF PRODUCTION SHADERS
- PER-OBJECT RENDER SETTINGS
- BSP2 RAYTRACE ACCELERATION
- NEW MENTAL RAY RENDER ELEMENTS
- MUDBOX INTEROPERABILITY
- FBX IMPORT/EXPORT
- ENHANCED SCENE EXPLORER
- VAULT 2009 SUPPORT
- VIEWCUBE NAVIGATION
- STEERING WHEELS NAVIGATION
- EDIT SOFT SELECTION
- WINDOWS VISTA/AERO SUPPORT
- OBJECT METADATA
- .NET SUPPORT
- CS HANDS LIKE FEET OPTION
- CS WORKING PIVOT ROTATION
- CS MIRROR ANIMATION OPTIONS
- CS TRIANGLE NECK





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## Features by VERSION RELEASE

### 2008

- REVIEW / MENTAL RAY WORKFLOW
- MAXSCRIPT PROEDITOR
- DEEPER DWG AND FBX
- ADAPTIVE DEGRADATION
- AO ENHANCEMENTS (A&D)
- SKY PORTAL WORKFLOW
- PHOTOGRAPHIC EXPOSURE UI
- LUME GLARE SHADER PERFORMANCE
- RTT IMPROVEMENTS
- IMPROVED RENDERED IMAGE WINDOW
- PIVOT OVERRIDES
- SUB-OBJECT PREVIEWING
- CONSTRAIN TO NORMAL
- EXPANDED CHAMFER
- IMPROVED MATERIAL ASSIGNMENT
- MULTIPLE UV UNWRAP
- PROJECT UVS
- AUTO-RESET FOR PROJECTION MODIFIER
- IMPROVED CAGE EXPORT PROJECTION MODIFIER
- DROP-DOWN MODIFIER LIST IMPROVEMENTS
- MANY CHARACTER STUDIO ENHANCEMENTS
- BONES: SIMULTANEOUS ROTATION
- IMPROVED SKIN LOAD WEIGHTS
- NEW DEFAULT FOR BONES/IK GOALS
- PARAMETER WIRING: FILTER SELECTION
- IMPROVED SHOW ANIMATED
- ENHANCED CUSTOM UI VIEWING
- HIDE GLOBAL TRACKS
- LOAD/SAVE ANIMATION
- EULER ANGLE FILTER
- ENHANCED MOTION MIXER
- IMPROVED DRAG SPACE WARP UI
- SUPPORT FOR SOLID OBJECTS

