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# CINEMA 4d XL 7

## 1.CINEMA 4D XL



#### Modeling



drag & drop



#### Cinema 4D 가 가 . 가 , subdivision surface modeling HyperNURBS . HyperNURBS , Zygote ( , , 가 ) , IK IK HyperNURBS, (symmetries) . Object Manager 가

.

## Texturing

Cinema 4D color, diffusion( ), luminence( ), transparency(), reflection(), environment( ), , , , specular, glow displacement channels (BMP, TIF, PSD ) . 가 Quicktime AVI , Cinema 4D 2D 3D procedural textures

drop . flat, cubic, cylindrical, UVW

Object Manager Ctrl

## Animation

Cinema 4D (scene) . position, rotation, scale, motion, path, morph, pulsate, sound, texture, visibility 가 . , Point-Level Animations (bones) Inverse kinematics(IK) facial . animations( Cinema 4D motion sequencing synthesizing ) 가 가 . (fade)가 가

...Cinema 4D 가



## Lighting

.

Cinema 4D spotlight omni light 7 , (Scene) 7 Noise turbulence , (Volume) ,

#### Sound

, Cinema 4D 가 . 3D . mono, stereo, DTS5.1, DDS 6.1,

Cinema 4D XL 6 . <u>Pump</u> Action Cinema 4D reflections, refraction, depth of field motion

blur ... Cinema 4D

* MAXON	*		* 가	
Modeling, Rendering, Animation				Output .
* Amiga ,	* ,		*	Open
7.33 .			GI 가	
*	*			
*3DS, LWO, VRML	(		가 )	
*CPU ( Dual	CPU	180% 가	, CPU 34	)

#### 2. CINEMA 4D V.7 (



#### CINEMA 4D XL Release 7

)

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CINEMA 4D CINEMA 4D XL Release 7 . R7

, bhodiNUT Smells Like Almonds , radiosity, surface caustics volume caustics, multi-pass rendering, , ExplosionFX,

CINEMA 4D XL Release 7

WindowsPower MacintoshHigh-End 3DCINEMA 4DXL Release 7CINEMA 4D

3D . R7

(Caustics),

, (Radiosity),

(Multipass Rendering), (Bones), (HyperNURBS), (Metaballs), . XL 3D (Freeform Deformation Objects) 가 CINEMA 4D XL CINEMA 4D ("Best graphic / multimedia software of CeBit" - Byte Magazine). DIGIT POLL " CINEMA 4D XL 3D SOFTWARE 4 Digit Online . 3D 가?" 1,539 , MAXON Cinema 4D XL 26%(401) CeBIT 2001 .... , Release CINEMA 4D XL . CeBIT 가 . Mac OS X 가 3D CINEMA 4D BodyPaint 3D 가 os x 가 3D cross-platform CINEMA 4D BodyPaint 3D

CINEMA 4D and BodyPaint 3D . , . CINEMA 4D 1996 multi-processing multi-threading , Mac OS X 7ł 3D . CINEMA 4D . .

Mac OS X 가 3D , CINEMA 4D BodyPaint 3D .

## **CINEMA 4D Release 7**

,



## / (Radiosity / Caustics)



#### - (Multipass-Rendering)

CINEMA 4D 7 (illumination, highlights, reflections, transparencies ) (PSD, RLA, RPF )



#### re-rendering

(Polygon-Reduction)

( , ) 3D web . CINEMA 4D .

#### Smells Like Almonds 2.5

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	SL	A 2.5 가 Release 7	가			I
x-rav	anisotropic (		(	)		
x iuy	)	, 가	X	/	1,000	



## (Explosion Effects)



, specular highlights 가 .

## CINEMA 4D NET 3 client license

power . CINEMA 4D NET , , . NET 3-client license CINEMA 4D XL R7 가 . PC , , HTML . CINEMA 4D XL , 가 . , , , , CINEMA 4D XL 가 가

CINEMA 4D XL V. 7			
*Padiaaity / Glabal illumination	*SLA 2.5 (Smells Like Almonds 2.5) -		
Radiosity / Global Indinination	( , 7.1 )		
*Multi-Pass Rendering	*Caustics		
	Enhanced Material System, Explosion Effects, Polygon-		
CINEMA 4D NET 3CL	Reduction		





## CINEMA 4d XL 73. Stating

- \* Mouse
- \* View









Use Polygon tool

**Use Point Tool** 

- Hotkey

*F1 : Perspective View	*F2 : Top View	*F3 : Right View
*F4 : Front View	*F5 : 4 View ( Perspective View + Top View + Right View + Front View )	* 1 : move camera
* 2 : scale camera	* 3 : rotate camera	* 4 : move object
* 5 : scale object	* 6 : rotate object	* 7 : scale model

1. 가

2. New palette -> Make Tab -> Rename

.

EX)1. Animation, Modeling, Rendering

## The GUI (Quick Tour)



# Fil Menu

MCINEMA 4D - [Untitled 1]	New :	
File       Edit       Objects       Tools       Selection       S         New,       Ctrl+N       Ctrl+N       Ctrl+O       Ctrl+O       Ctrl+O       Ctrl+O       Ctrl+O       Ctrl+O       Ctrl+O       Ctrl+S       Ctrl+Shift+O       Ctrl+Shift+O       Ctrl+SA       Ctrl+SA	Open :	(import) openc4d, .cat, .prt import- dxf, 3dm(binary only) vrml1, vrml2 3ds(modeling, material, light sorce) obj(wavefront – polygon) lwo(lightwave – modeling, UV map, metarial, light, animation, weights map dem, illustrator (ai, art, eps 7)
Export,  Import/Export Settings	Merge	가
Recent Files	Revert to saved	
	Close	
	Close	
	All	
	Save	
*Import/Export Setting	Save	
-	as	
	Save	
	all	
	Save	(
	project	-TEX -> )
	Export	3ds(max->no) Direct3d/Driect X ( ) DXF VRML1, VRML2 Quick Draw 3d(dem) Wavefront(Polygon) XML

## MAIN TOOL



# Object menu

100 F	4.1	248
Let Thip	1. 1	V94
-Let Dre	4.1	43 8
-Lat Fast .	42	235
Lat Part Ster	14.1	
SLation:	11	35
Lat bard	41	3.8
Lat John	4 1	38
April Tage	4.2	VSE
Photo Shite	4.2	V34
- Pages Front	1.1	V94
Ter marine	1000	0.00

Object menu Viewport

IK(inverse Kinematics)

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Objects Structure Browser			File—ı	menu	
🔩 File Edit Objects Tag	gs Textur	e Diucio Toco			
Restore Selection Load Object Ctrl- Save Object as Ctrl-	+Shift+O +Shift+S	Display Tag Protection Tag Smoothing Tag Restriction Tag			
✓Display Tags		Render Tag			
□ Close	Shift+W	Texture Tag			
Left Joint	4:	Stick Texture Tag			
Left Joint	4:	Anchor Tag IK Tag	IK IK		
⊟-Right Thigh	4	Motion Blur Tag			
□-Right Shin	4:	URL Tag		(VR )	
	4:1	Stop Tag		stop	
		A 5-4			
File—	menu	ଡ଼ୢୣୣୣ୷ଡ଼	Obj	ects Structure Bro File Edit Objects New Tag	wser  Tags Tex
		C.O.F.F.E.E. Expre	ession	New Expression	
IK		Fixing Expression		Restore Selection	
SUN Lighting		IK Expression		Load Object,	Ctrl+Shift+O
		Sun Expression		Save Object as,,,	Ctrl+Shift+S
		Target Expression		✔Display Tags	
				Close	Shift+W
				1.4.1.1.1.1	<u>,</u> 0

Objects	Structure Brow	/ser Tags Textur	9	Edit
Figure	∽ Undo	Ctrl+Z	o 🖞 💐 🔺	Undo
Left	ra nedo	U(()+Y	1 % 🐨	Redo
T.	🚴 Cut	Ctrl+X		
F-Le	🕥 Сору	Ctrl+C	V VO XV	
	🝈 Paste	Ctrl+V	1 % 🐼	
	🕤 Delete	Del, BS		
	🧭 Select All	Ctrl+A		
	Deselect All	Ctrl+Shift+A	ə 🗐	
	1 0 1 1 1	1 0 10	200	

Objects Structure Browser				
🛧 File Edit Objects	Tags Texture			
E-Figure	Edit Tag Conv Tag to Children			
E-Left Thigh	Delete Tag from Children			
⊟-Left Shin	A V % %			

Objects Struct	ture Browser Objects Tags Texture	Object
Figure Left Thigh Left Shir Left F	Object Display Edit Object Rename Object Group Objects G Expand Object Group Shift+G Information (Object) Information (Scene) Ctrl+I	
Le Left J	Search Active Object Fold All Unfold All	
E-Right Thigh	Fix Bones Reset Bones	
⊟-Right Sh	Bake Particles	
⊕Right	Foot 🔺 💙 🧐 💐	

Objects Structure Browser 🛧 File Edit Objects Tage	Texture	
Figure	🔹 Generate UVW Coordinates 🛛	UV UV
E-Left Shin	<ul> <li>Fit to Object</li> <li>Fit to Image</li> <li>Fit to Region</li> </ul>	( )
Left Foot Effector	<ul> <li>Adapt to Object Axis</li> <li>Adapt to World Axis</li> <li>Adapt to View</li> </ul>	View
Left Joint	Mirror Horizontally Mirror Vertically	

# Material menu

Mate	erial	
Cold Diffu Lum Trar Reflu Envi Fog Burr Alph Spe Spe Glov	w,2 w,2 or sion inance isparency ection ronment p a cular cular cular cular cular cular cular cular cular cular cular cular cular cular cular	Color R G G B B 100 % B 100 % D 100 % D 100 % D 100 % D 100 % D 100 % D 100 % D 100 % D 100 % D 100 % D D C D D D D D D D D D D D D D
Undo		Refresh
Color		가
Diffusion		
Luminance		가 가
	(Diffusion	)
Transparency		
Reflection		가 .
Environment		가,,,,
Fog		
Bump		
Alpha		,
Speccular		
Speccular color		
Glow		
Displacement		



## **Obect Menu**





## - Primitive : Parametric(

## 가

## )

•

#### Parametric

370

1.Cone	Cone 🛛	Top Radius :
( )	Top Radius 0 m	bottom Radius :
	Bottom Radius 100 m	Height :
	Height 200 m	Height Segments :
	Height Segments 8	Rotation Segments :
	Rotation Segments 36	Orientation : (x,y,z)
	Orientation +Y -	Slice :
	Slice U to 180	Cap: ,
	Flegular Grid Turno	Cap Segments :
	Cap Segments 3	
	Fillet Segments 5	Fillet Segments:
	Top Fillet Bottom Fillet	
	Radius 50 m Radius 50 m	Top Fillet / Bottop Fillet:
	Height 50 m Height 50 m	Podiuc:
	OK Cancel	Kadius. ,
		(Top Radius >F .)
		Height : Top Fillet / Botton Fillet
2. Cube	Cube 🔀	Width(X) - X ,
( )	Size Segments	Height(Y) -Y ,
	Width (X) 200 m 1	Depth(Z) -Z ,
	Height (Y) 200 m 1	Size:
	Depth (Z) 200 m 1	Segments:
	Fillet 40 m 5	Fillet: , ,
	F Separate Surfaces	
	OK Cancel	Speparate Surface:

3. Cylinder	M Culinder V	Radius :
( )	Partice Comment	Height:
	Heliokt 200 m	Height Segments
	Height Segments 8	Rotation Segments
	Botation Segments 36	
	Orientation +Y I	
	Slice 0 to 180	
	Regular Grid 10 m	Cap: ,
	Caps	Cap Segments :
	Cap Segments 3	
	Fillet Fillet Segments	Fillet :
	Badius 20 m	Fillet Segments:
	OK [ Cancel ]	
		Radius: ,
4. Disk	M Disc	
( )	Inner Badius	inner Radius:
	Outer Radius 100 m	•
	Dias Company	Outer Radius:
	Disc Segments 4	Disc Segments: ~
	Rotation Segments 36	Rotation Segments:
	Orientation +Y	(가)
	Slice 0 to 180	Orientation: (x, y, z )
	OK Cancel	Slice:
5 Plane	M Plane XI	
	Segments	Width
( )	Width 400 m 20	
	Height 400 m 20	
	Orientation +Y -	Segments: Width, height
	OK Cancel	Orientation: (x, y, z )
6. Polygon	W Polygon X	Width:
( )	Width 100 m	height:
	Height 100 m	Subdivison:
	Subdivision 1	Orientation: (x, y, z )
		Triangle:
		Subdivison

7. sphere ()	Sphere       Image: Segments       Image: Se	Radius: Segments: Type: ( ) Render Perfect:
8. Torus ( )	Torus       X         Ring Radius       200 m         Ring Segments       36         Pipe Radius       50 m         Pipe Radius       50 m         Pipe Segments       18         Orientation       +Y         Slice       0         Market       10 m         OK       Cancel	Ring Radius : Ring Segments : Pipe Radius : Pipe Segments : Orientation: (x, y, z ) Slice : Regular Grid : Slice
9. Capsule ( )	Capsule       X         Radius       50 m         Height       200 m         Height Segments       8         Cap Segments       8         Rotation Segments       36         Orientation       +Y ▼         Slice       0 to 180         Regular Grid       10 m         OK       Cancel	Radius : height : height Segments : Cap Segments : Rotation Segments : ( 7 ) Slice: Regular Grid : Slice
10. Oil Tank ( )	Oil Tank       Image: Cap Rounding       100 m         Cap Rounding       25 %         Height       200 m         Height Segments       8         Cap Segments       8         Rotation Segments       36         Orientation       +Y I         Slice       0       to 180         Regular Grid       10 m         OK       Cancel	Redius : Cap Rounding : height : height Segments : Cap Segments : Rotation Segments : ( 7} ( 7} ) Slice: Regular Grid : Slice

11. Tube ( )	Tube       X         Inner Radius       50 m         Outer Radius       200 m         Rotation Segments       36         Cap Segments       1         Height       100 m         Height Segments       1         Orientation       +Y ✓         Slice       0       to 180         Regular Grid       10 m	Pipe Radius :         Pipe Segments :         Rotation Segments :         ( 7)         Cap Segments :         Height :         Height Segments:         Orientation :       (x, y, z)         Slice :         Orientation         (x, y, z)
12. pyramid ( )	Victor Cancel	Slice: Regular Grid : Slice Width(X) -X , Height(Y) -Y , Depth(Z) -Z , Size: Segments: Orientation : (x, y, z )
13. Platonic (?)	Image: Concerned state	Radius: Platonic Segments: Platonic Type: Platonic ( )
14. Figure ( )	Figure     Image: Segments       14       OK	ік 7ł

15.	
Landscape	YW Landscape
()	Width 600 m 100
	Height 100 m
	Depth 600 m 100
	Rough Furrows 50 %
	Fine Furrows 50 %
	Scale 1
	Sea Level 0 %
	Plateau Level 100 %
	Orientation +Y -
	Multifractal
	Spherical
	OK   Cancel
16. Relief	M Belief
( )	
- 25	
	Size Seaments
	Width (X) 600 m 100
	Height (Y) 100 m
	Depth (Z) [600 m [100
	Bottom Level 0 %
	Spherical
	OK Cancel

# **Nubs**

#### (TIP! : Cinema4d





Hyper Nubs



3





## **Extrude NURBS:**



## Lathe NURBS:

360		
ML athe NUBBS	Genenal	
General Dataile	U Direction :	
Isoparm Subdivision 4	V Direction	
V Direction		
Angle 360	Angle .	
Subdivision 24		
Movement 0 m		
Scaling 100 %		
Start Cap		
End Cap 🔽	*Subdivision :	
Flip Normals		
		100 8
	*Movement ·	
	-	0 50
WLathe NURBS	*Scaling :	
Boundan Convey M		
Start Steps 1		
Start Radius 5		
End Steps 1		100% 40%
Phong 60	*Start :	no cap, cap, rounding,
Hull inwards	cap+ronding 4가	
Constrain Contour	*End :	no cap, cap, rounding,
Hegular Subdivision 10 m	cap+ronding 4가	
OK. Cancel		
Details Extrude NURBS		





* Constant Cross Section: ( Front )	on off
* Banking: 가	on off
*Keep Segments: (	on off
*Use Rail Direction: 3 가 가	the flat Devotor solution
* Use Rail Direction(2-Rail): 2 2	the Rat Develop not selected
* Use Rail Scale	2. Rail not solected



Array :         7t           Array Radius :         7t           Radius :         7t           Amplitude Om         7t           Frequency 0         Amplitude :         7t           Copies :         7t         Amplitude :         7t           Frequency :         7t         7t         7t           Boolean :         7t         7t         7t           Atray Frequency :         7t         7t         7t           Mathematical Amplitude :         7t         7t         7t           Mathematical Amplitude :         7t         7t         7t           Amplitude :         7t         7t         7t <th></th> <th></th> <th></th> <th></th> <th></th> <th>ng</th> <th>Modelir</th>						ng	Modelir
Madius       Z50 m       Radius       Z50 m         Copies       7       -       -       -       -       -       -       -       250 m       -       -       -       -       250 m       -		가	가			Array :	3
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A-Subtract-B       A-Union-B         A-Intersect-B       A-Intersect-B         A-Subtract-B       A-Union -B         A-Subtract-B       A-Union -B         A-Subtract-B       A-Union -B         A-Subtract-B       A-Without-B         Image: A B       A B         A B       A B         A B       A B         A B       A B         A B       A B         A B       A B			가		n :	Boolean	
A - Subtract - B     A - Union - B     A - Intersect - B     A - Without       A B     A B     A B     A B     (			tract-B A-Union-B	A-Sut A-Intersect-B			
A B A B A B A B (		A 14/444 D	A Internet D	A Union D	whitest D		
	)	A B ( )	A B	A B	B B	A-Sut	





	Symmetry :	( , , , )
	Symmetry Object         Mirror Plane       ZY         Weld Points       0.01 m         Symmetric       OK         OK       Cancel         Weld Points : Point       (         7ł       .	Image: Wire Plane
	Symmetric : Weld Points	
	Point가 Weld .	
*	* Construction Plane : View	,(

# MATERIAL (MAPPING) & RENDERING



## \*Cinema4d

-JPEG, IFF(ILBM), TIFF, TGA, BMP, PICT, PSD(PHOTOSHOP), MOV(	), AVI	MOV	AVI

Tip!!! :	jpg가	TGA, TIF가				
	. PSD	BODYPAINT		가		
			가		.(	;)





## MAPPING

## \*Mapping-Texture









# 1. Texture menu ... 2. Texture Menu 3. Brushes Settings . 4. Layer . Color, Bump, Transparency,Reflection 5. Brushes

- 가... 가 가 가 .

, 가,

6. Color

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 Mew Texture

 Image: Te



- . Swatces . 1. ..( ~)
- 2. VIEW Texture ... New texture .
  - ...가 ..(800\*600) ?





# Rendering -Render Menu

Render View	View .
Render Active View	
Render Region	
Render to Pictcture View	Render to Pictcture View ( )
Render Batch Rendering	10
Render Settings	, (
New Render Settings	
Delete Render Settings	

# **Render Setting**

General       Output         Save       Antialiasing         Radiosity       Antialiasing         Geometry       Image         Caustics       Filter         Effects       Filter         Options       Transparency         Multi-Pass       Reflection         QuickTime VR       Reflection         All Objects       Image         OK       Cancel	Filter : Antialiasing Transparency : Reflection : Shadow :  none < Geometry < Best (Best )

🕅 Render Settings	X	Resolition :	
General Output Save		Fim Fomat :	가 :
Antialiasing Radiosity Caustics Effects	Resolution         320 × 240 NTSC MPEG1         320         × 240           Film Format         Automatic         Image: 320         : 240           Pixel         1         : 1         Image: 320         : 240	Frame :	All
Multi-Pass	Frame Current Frame D F to D F	Frame Rate :	
Quick lime VH	Field Rend. None  Frame Rate 30 Frames: 1 (from 0 to 0)	( 1s/30Fdmfh	)
	OK Cancel		
🕅 Render Settings	×	Path :	
General Output		Format :	
Save Antialiasing	Format TIFF Diptions	Depth :	
Radiosity Caustics	Depth 8 Bit/Channel	Name :	(
Effects Options	Name Name0000, TIF	!!)	
Multi-Pass QuickTime VR	Alpha Channel	DPI :	가
	Estraight Aipha		
	Z4 Bit Dithering AtterEffects Project File Save		(
1	OK Cancel	Dpi )	
		Alpha Channel :	
		,	,
		. (	)
		Straight Alpha :	
		3	3
		-	

General Output Save Antialiasing Radiosity Caustics Effects Options Multi-Pass QuickTime VR	Antialiasing Geometry Filter Still Image Softness 50 % Threshold 10 % MinyMax Level 1x1 = 4x4 = Filse Object Properties MIP Scale 100 %	 Cinema4d XL
General Output Save Antialiasing Radiosity Caustics Effects Options Multi-Pass QuickTime VR	Radiosity         Stochastic Mode         Strength         Accuracy         Prepass Size         Diffuse Depth         Stochastic Samples         Max, Resolution         Max, Resolution         Recompute         Style Animation Solution         OK	
Render Setings General Output Save Antialiasing Radiosity Caustics Effects Options Mutti-Pass QuickTime VR	Surface Caustics Volume Caustics Strength 100 % Step Size 2 m Sample Radius 10 m Samples 100 Recompute First Time = Save Solution Single Animation Solution	;
General Output Save Anfialiasing Radiosity Caustics Effects Options Mutti-Pass QuickTime VR	✓ Enable Post Effects ✓ Lens Effects ✓ Object Glow OK Cancel	2 (Lens Effects), Object Glow7 Post Effect ( , , , , ) !

General Output Save Antialiasing Radiosity Caustics Effects Options Multi-Pass QuickTime VR	Active Object Only Auto Light Log File Textures Cancel if Texture Error Blurry Effects Volumetric Lighting OK Cancel	,
General Output Save Antialiasing Radiosity Caustics Effects Options Multi-Pass QuickTime VR	Enable Multi-Pass Rendering     Enable Multi-Pass Rendering     Save Multi-Pass Image     Separate Lights None     Multi-Layer File     Mode     Schannels: Dift     Path     Path     Permat     Photoshop (PSD)     Options Depth     8 Bit/Channel     F Layer Name as Suffix      OK     Cancel	SAVE Channels
General Output Save Antialiasing Radiosity Caustics Effects Options Multi-Pass QuickTime VR	Horizontal Settings Steps 36 Start Angle 0 End Angle 350 Generate File VB X Detault Resolution 320 Y Detault Resolution 240 OK Cancel	Quick Time VR Quick Time VR 360

-Stochastic Mode

- ( ,2 [ ] .

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Stochastic Mode: [ ] Stochastic: .1 『統』

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- \* omi , 100%
- \* soft



Strength



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## Deffuse Depth



## Stochastic Sample

Stochastic Sample:1 - Rendering Time:00:00:08	Stochastic Sample:1 - Rendering Time:00:00:10
0	
Stochastic Sample:32	Stochastic Sample:32
Rendering Time:00:00:48	Rendering Time:00:01:08
Stochastic Sample:70	Stochastic Sample:70
Rendering Time:00:02:20	Rendering Time:00:03:25

## Stochastic Mode

sein "Test7"



가













## Ligh Bounce

