

, , blender, manual

## 3D

- <http://mmdguide.tistory.com/861>
- <https://blog.naver.com/jungwan82/20152998612>
- <https://blog.naver.com/jungwan82/20153010074>

, , ,

- <https://blog.naver.com/jungwan82/20153062792>

## Scene

- New 가
- Copy Settings Render
- Link Objects ( , , ) ( , )
- Link Object Data ( , )
- Full Copy

## Context

가 ..

- Render: , , /
- Scene : ,
- World : , , , (Ambient Occlusion)
- Object : , , , 3D View
- Constraints: , , 가
- Modifier : 가

Mirroring

Object Data : Object Data

Focal Length

Smoothing

Object

가

가

가

UV

Map

Material :

Textures : 가

Particles : Force Field

Physics : , Force Field, , ,

3D

2D

3D

Vertices 가

Full Render

F12 Image

Full Render

ESC

Ctrl+F12 Animation

Full Render

ESC

OpenGL

3D View 가

OpenGL Render Image OpenGL

Render

OpenGL Full Render 가

가

3D View

Display Only Render

’, ’

- <https://blog.naver.com/jungwan82/20153248202>

/

■

’, ’

**Screeshots and Screencasts**

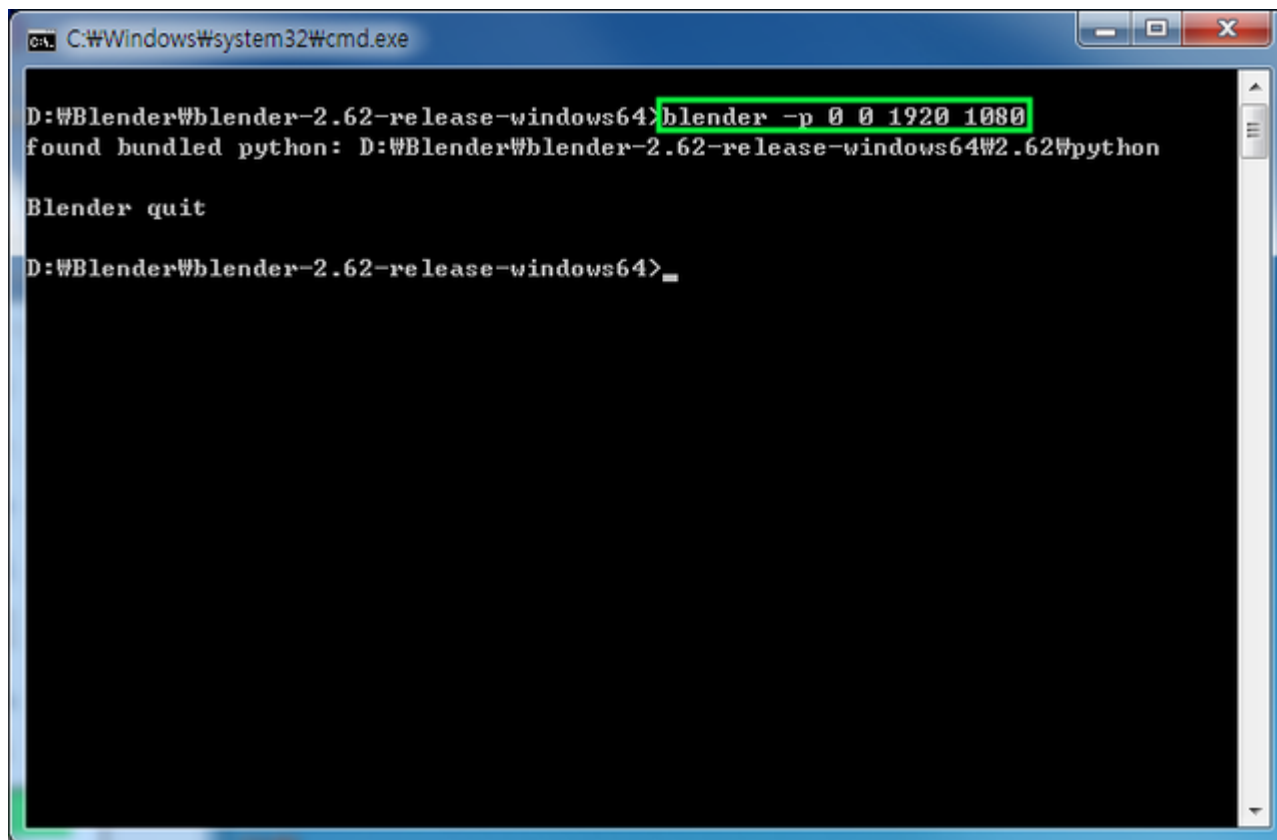
- : 가
- :

Ctrl+F3 .

■

Alt+F3 .

가 blender -p 0 0 1920 1080 0,0  
1920 1080 .



가 가 가



, , ,

- BMP
- DDS
- SGI IRIS
- PNG
- JPEG
- JPEG 2000
- Targa
- Targa Raw( )
- TIFF

- AVI
- AVI JPEG
- AVI RAW
- Frame Server
- H.264

- MPEG
- Ogg Theora
- QuickTime
- Xvid

10/11/2019

( , ) .



- 가
- Pass ( PASS
- .)

/

• <http://matrep.parastudios.de/>

## materials

AddOn

Append/Link  
.blend

wood, metal, Fur, Glass  
가

ShaderTool(<http://shadertools.tuxfamily.org/>)

AddOn

.

Proxy Objects

가

.

.

Link

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가

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가

.

Armature

Protected

.



<https://www.blendswap.com/>

Armature 2

Protected

.

가

.

가

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2

IK

가

.blend

.

Ctrl+Alt+P

.

3D View



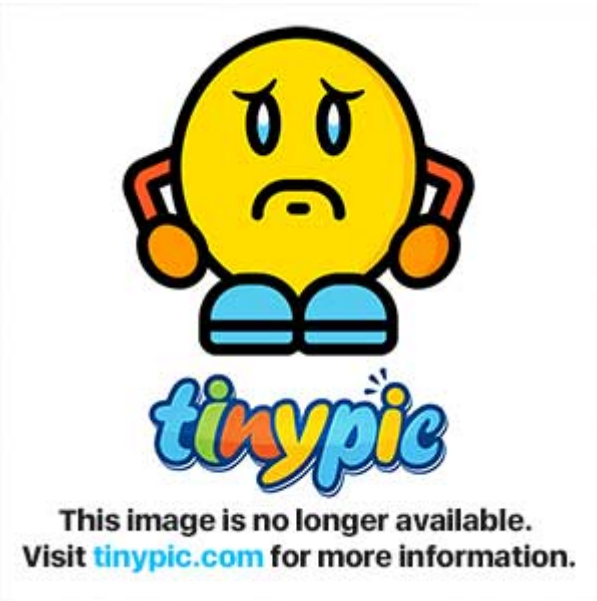
/ / Transformation

3D View

3D View

가 3D 2D

- D
- Ctrl + D
- Ctrl + D



• View: 가 . 3D View 가

- Cursor: 3D Cursor가, 3D view
- Surface:
  - Stroke:



- Manhattan Distance :
  - Euclidean Distance :가
- Eraser Radius:
  - Smooth Strokes:

1/4, , Selection

3D , , 가

- Objects
  - Meshes
  - Curves
  - surfaces
  - Text
  - Meta Object
  - Duplications
  - Modeling Script : .

가





가  
Geometry

- Origin to Geometry
- Origin 3D Cursor

2/4, /

Parenting, Grouping

/

가  
/

가

Ctrl + P

가

Good to know: 가  
가 3D View

/

Ctrl+P



/

(0,0,0)

Good to Know: Ctrl+P    Shift+Ctrl+P

가

Ctrl+P

shift+ctrl+p

/

Alt+P



<WARP info>

1~3

</WRAP>

- Clear Parent:
- Clear and Keep Transformation
- Clear Parent Inverse

Grouping

/

Grouping



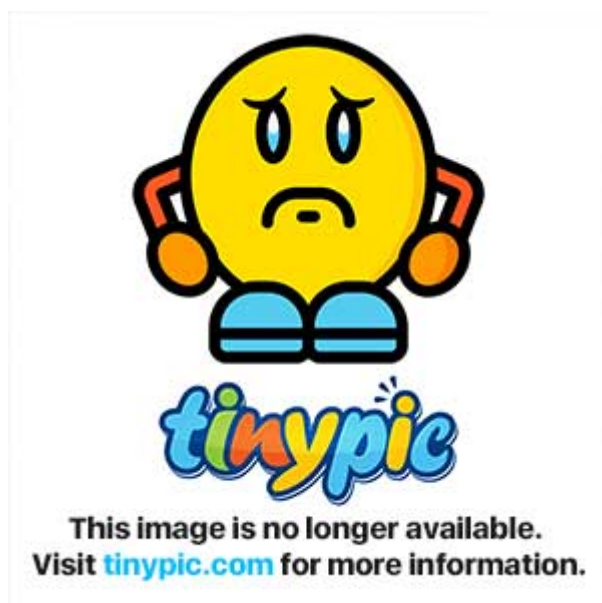
Object Groups Ctrl+G

- 3/4, Tracking

- <https://blog.naver.com/jungwan82/20153948863>

Tracker 가 Target

Ctrl+T



- Damped track Constraint :

- Track to Constraint :



- Target: 가  
 • Vertex Group: 가  
 • To :  
 • Up : Z. X  
 • Space : ( / / ) 가  
 • Lock Track Constraint : 가  
 • Lock Track Constraint : ( Z

Alt+T

## Constraints

- 4/4, **Duplication**

가	Shift+D	Object (Grab)	Duplicate
.			

Linked Duplicates

Object Data

가

가

Alt+D

가

가



Procedural Duplication



Dupli Frame

Path Animation		Frame	Path
1. Shift+A	Curve→Circle	가 S	
2. Circle		Object Data	Path Animation Frame
16	16	가	
3. 가			
4. Circle			
5.		Duplication	Frame
Speed			
6. Alt+O	Origin		
.blend			
, 가			

- <https://blog.naver.com/jungwan82/20154130359>

,	,	가
---	---	---

Vertices

3	가	Tab
가		



Edges

2

Mesh Select mode

○

Vertices/

.

Edges/

Faces

Ctrl+Tab



Faces

가

.

3

4

Loops

Alt+





Mesh Primitives

Shift+A가

가

Add-On가



Mesh Select Mode

3D header

3D header

Ctrl+Tab

Shift+



This image is no longer available.  
Visit [tinypic.com](https://www.tinypic.com) for more information.

$\frac{1}{2}$

/      /      . Shift+      가  
 .      Shift+

Ctrl+ C 가 . +/- B

3D View header Select 가

- (A) :
- (Ctrl+I) :
- 가 / (Ctrl + +/-) : 가 가
- Mirror: .
- Linked (Ctrl+L) : .
- Select Random: .
- Every N Number of Vertices: 가
- Select Sharp Edges : 가
- (T) Select Sharp Edges .

- Linked Flat Faces(Ctrl+Alt+Shift+F) : 가

...



Edge Ring Selection

Ctrl+Alt+ . Edge Ring Face

Loop .



Transform

Edit Mode . Tab

- Ctrl+F Face
- Ctrl+E Edge
- Ctrl+V Vertex

Push / Pull

가  
Mesh Transform→ Push/Pull

Warp

3D Mesh Transform → Warp  
가 3D Warp

1. 가 . Shift+A ⇒ Mesh ⇒ UV Sphere
2. 3D 가. Shift+A ⇒ Text
3. Tab
4. Tab Object data Extrude  
Bevel Depth

...

Merge

Alt+M

Rip polygon

V

Split

Y

## Separate

P

## Remove Doubles

2

가

Extrude

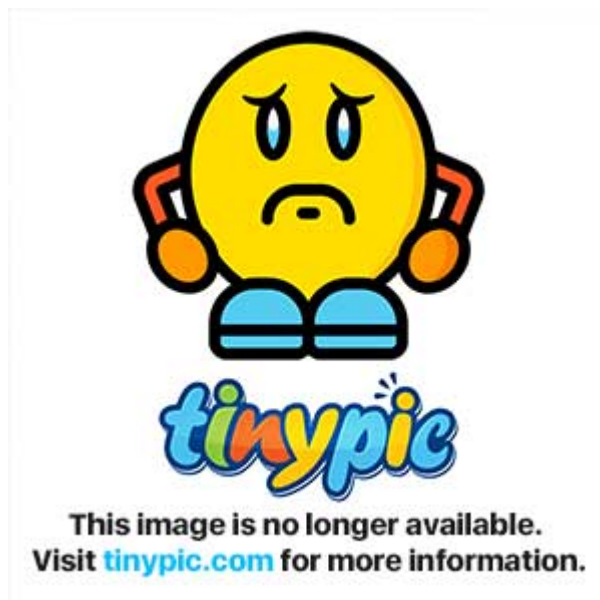
ESC

Ctrl+V(vertices)

W(special)

Remove Doubles

F



## Subdivide

Ctrl+E (Edges) W (Specials)

Subdivide

가

가

## Extrude, Duplication, Spin, Screw

- <https://blog.naver.com/jungwan82/20154583626>

## Extrude

E

Extrude                      Grab(G)                      가                      . Grab  
Extrude                      R                      S

Shift+D

3D Cursor                      Extrude

Skew    Spin                      가

Subdivide, Subdivide fractal, Subdivide smooth, Loop Subdivide, Knife  
subdivide, Bevel

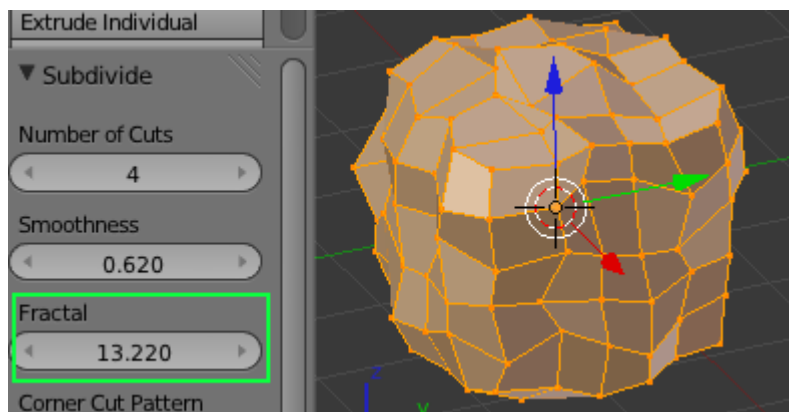
## Subdivide

W ⇒ 1

## Subdivide smooth

W ⇒ 2

## Subdivide fractal



Loop Subdivide

Ctrl+R

Knife subdivide

K  
가

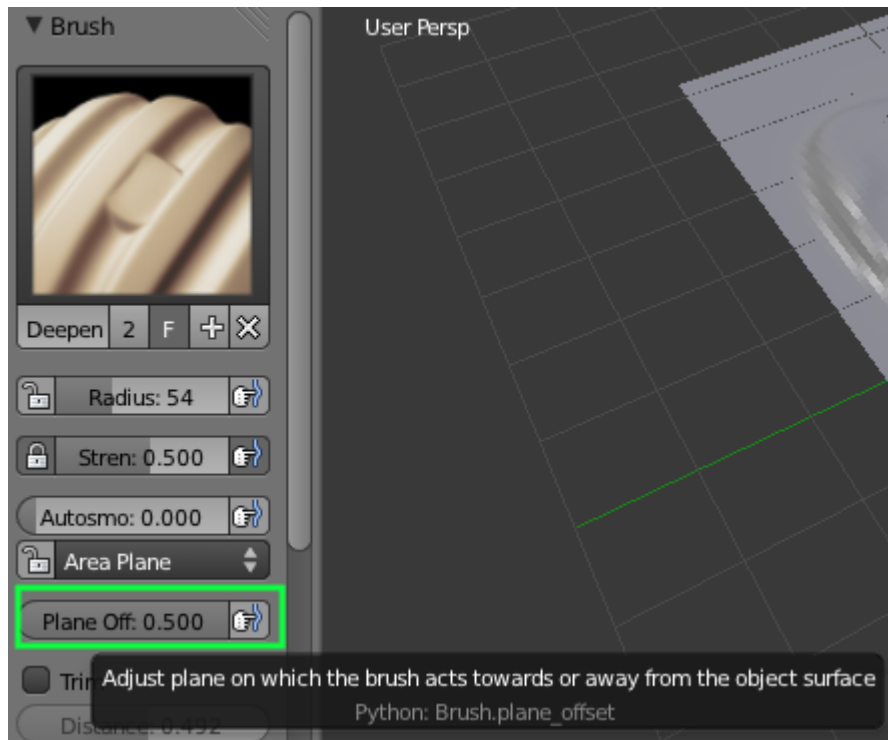
Sculpting

Sculpt Mode

Brush 가  
Subdivide (Edit W⇒1)

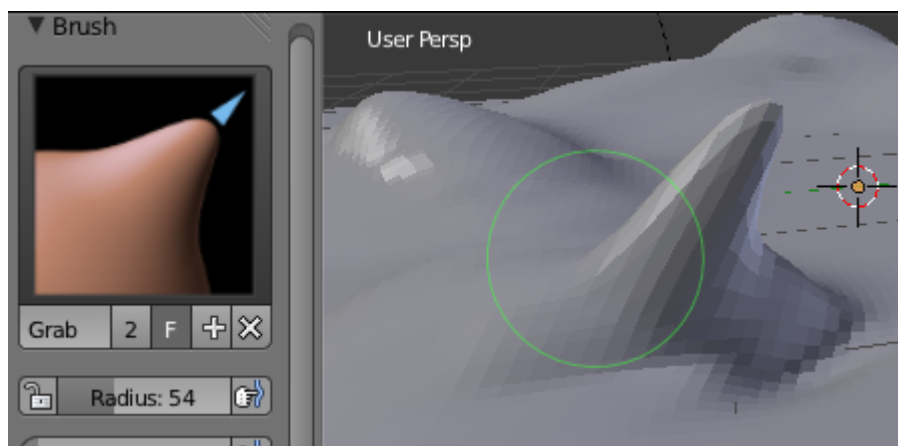
3D View  
(N ) Brush, Texture, Tool, Symmetry, Stroke, Curve  
. 3D View

- Blob:
- Clay: Draw
- Crease :
- Draw:
- Fill/Deepen :  
Deepen . Fill Plane offset 가 . Plane offset



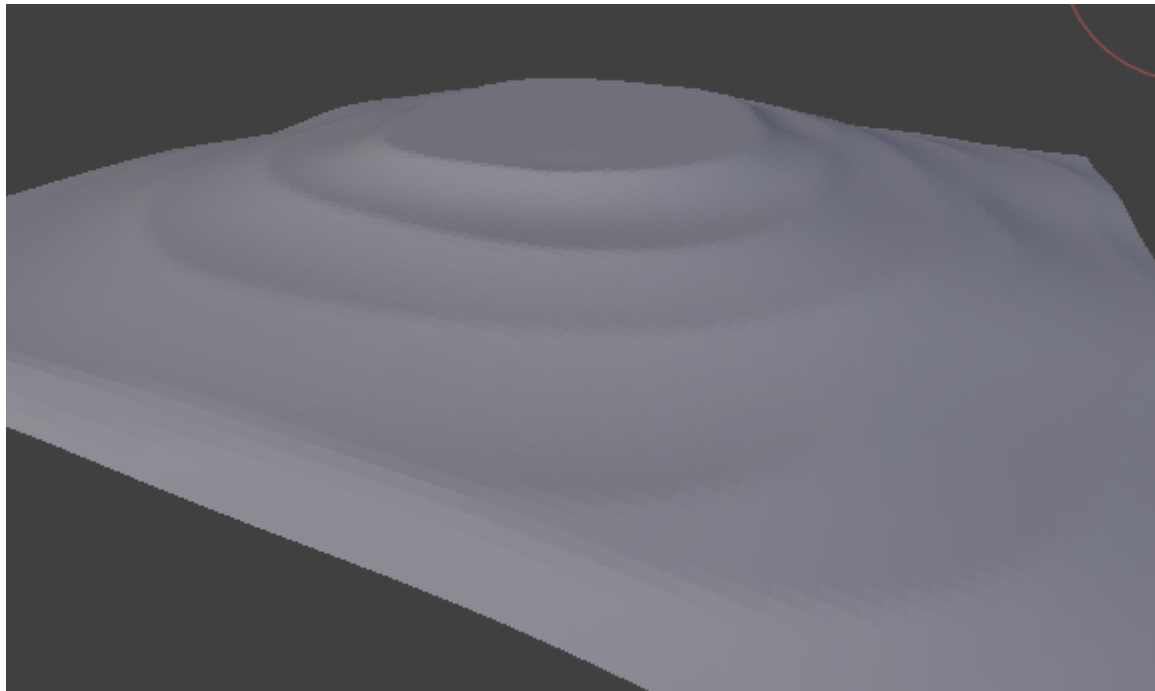
- Flatten/Contrast: Flatten
- Grab:

Contrast



- Inflate/Deflate / : Draw 가
- Layer :





- Nudge: 가 .
- Pinch/Magnify: .
- Smooth: 가 . 가 . 가
- Snake hook: Grab .

## Brush Panel

- Radius:
- Strength
- Autosmooth
- Sculpt Plane: . X, Y, Z  
View Area Plane  
가 .
- Plane Offset:
- Trim:
- Front Faces Only: 가 .
- Accumulate: 가 .
- <https://blog.naver.com/jungwan82/20155687313>

- [Blender](#)

From:  
<https://moro.kr/> - **Various Ways**

Permanent link:  
<https://moro.kr/open/%EB%B8%94%EB%A0%8C%EB%8D%94-%EB%A7%A4%EB%89%B4%EC%96%BC>

Last update: **2020/06/02 09:25**

