

2^DOSE
REF

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Poser2D Window

The image shows a screenshot of the Poser2D software window with various controls and annotations. The window is divided into several sections: Preference, Mesh, Skeleton, and Export. Annotations with colored arrows point to specific controls and explain their functions.

Preference Section:

- bone width for creation (black arrow) points to the Bone Width slider, which is set to 0.03.
- goal size of iksolver for creation (black arrow) points to the Ik Goal Size slider, which is set to 0.1.
- show cross of poser root (black arrow) points to the Show Root checkbox, which is checked.

Mesh Section:

- material for mesh operation (blue arrow) points to the Material dropdown menu, which is set to EyeMan.
- convert sprites to meshes by root of hierarchy (blue arrow) points to the Convert(H) button.
- convert sprites to meshes by selections (blue arrow) points to the Convert button.
- edit last selected mesh (blue arrow) points to the Edit button.
- merge meshes of seletions to single one (blue arrow) points to the Merge button.
- merge meshes to single one by root of hierarchy (blue arrow) points to the Merge(H) button.

Skeleton Section:

- create bone (green arrow) points to the Bone button.
- create iksolver (green arrow) points to the IkSolver button.
- create spline (green arrow) points to the Spline button.
- open last selected poser snapshot window (green arrow) points to the Snapshot button.
- change transform smooth (green arrow) points to the Smooth Transform button.

Export Section:

- strip last selected poser (red arrow) points to the Strip button.
- export stripped poser (red arrow) points to the Export button.

Dropdown Menus:

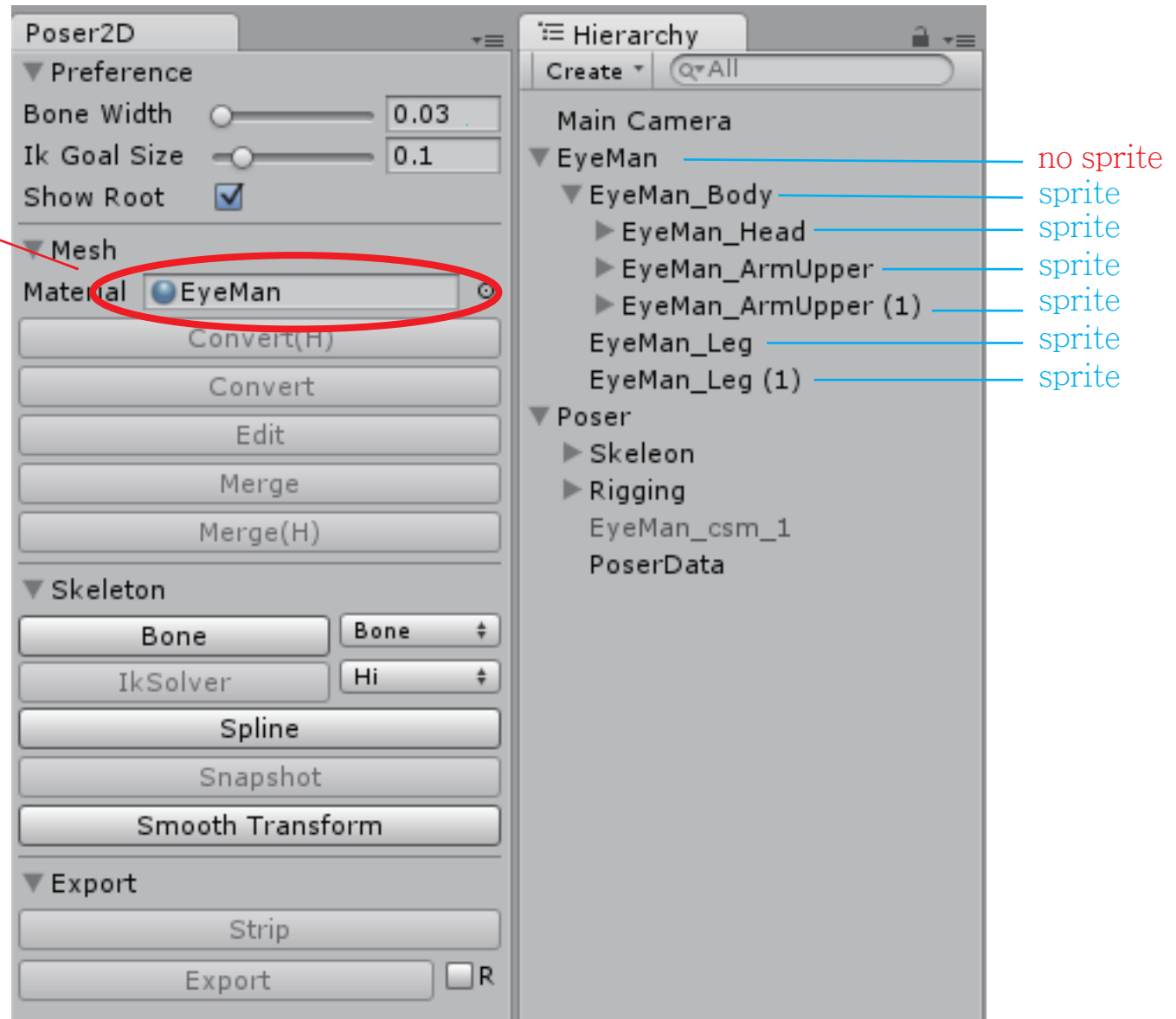
- The Bone dropdown menu shows options: Bone (selected) and Pivot Bone.
- The IkSolver dropdown menu shows options: Bone (selected) and Hi.
- The Spline dropdown menu shows options: Hi (selected), Limb, and Spline.

Other Controls:

- The checkbox R (replace old export animations) is located next to the Export button.

Mesh

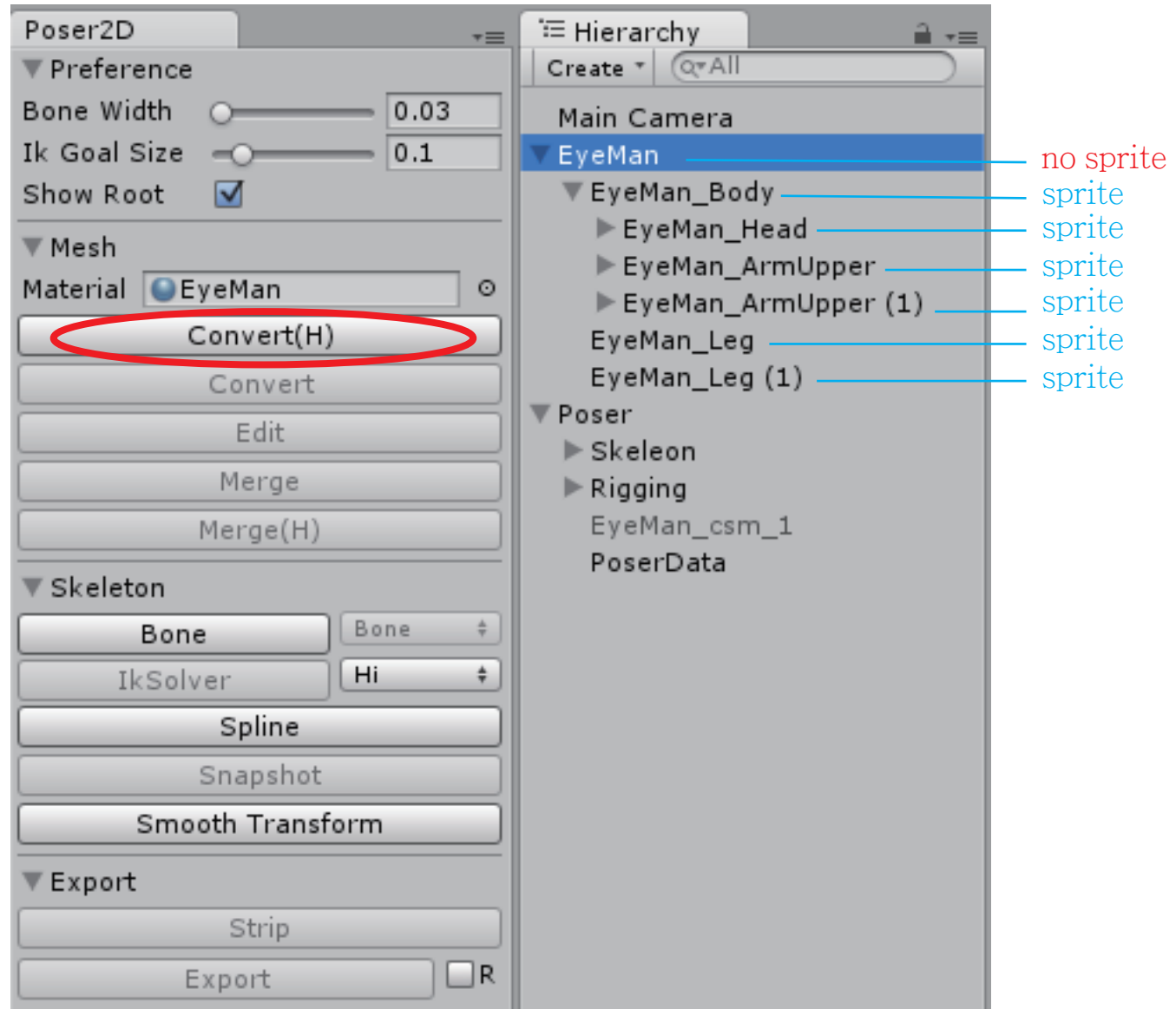
convert or merge mesh need a material for a operation



Mesh - Covert(H)

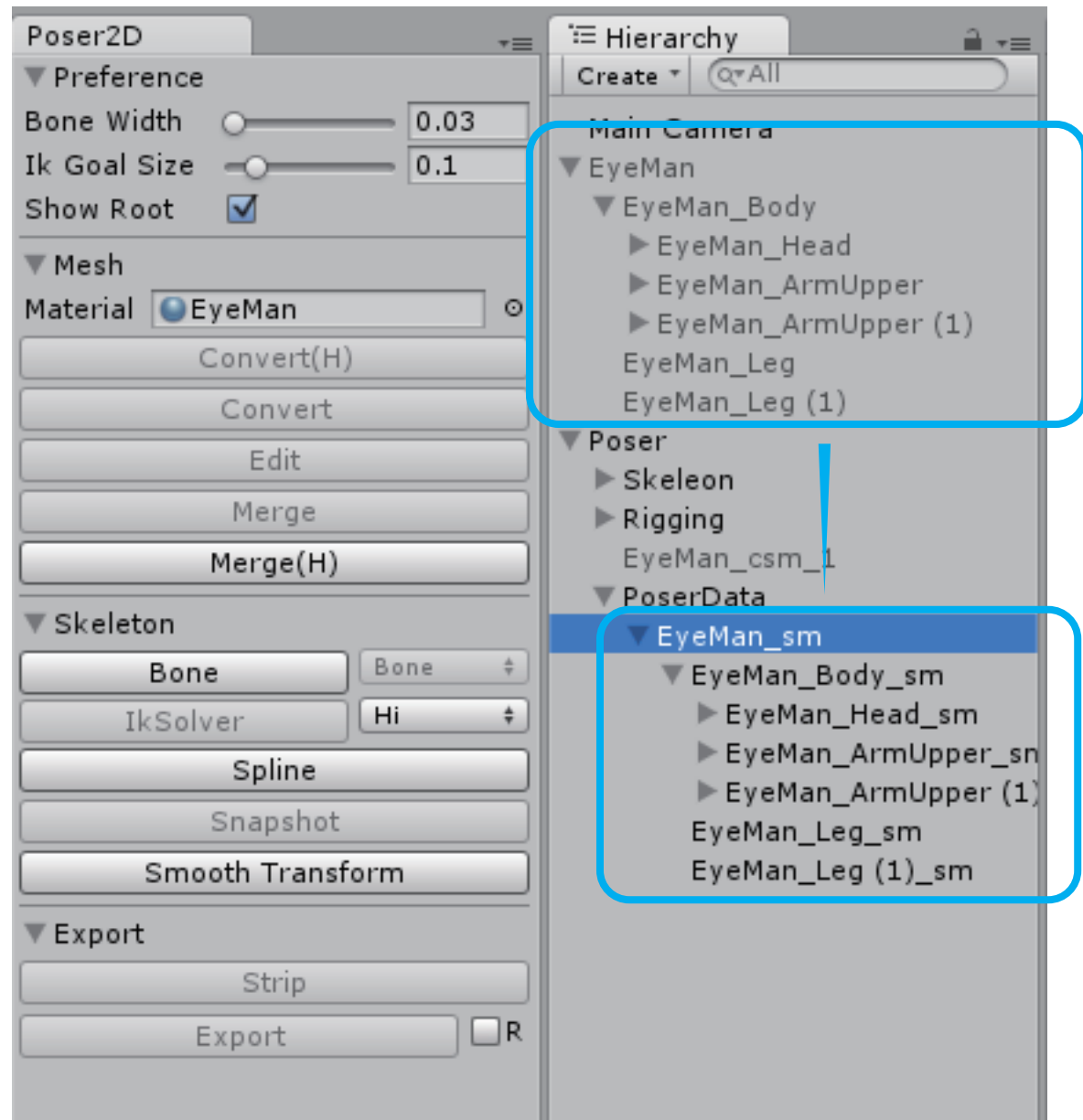
active button

there is at least one sprite in the last selection or children



Mesh - Covert(H)

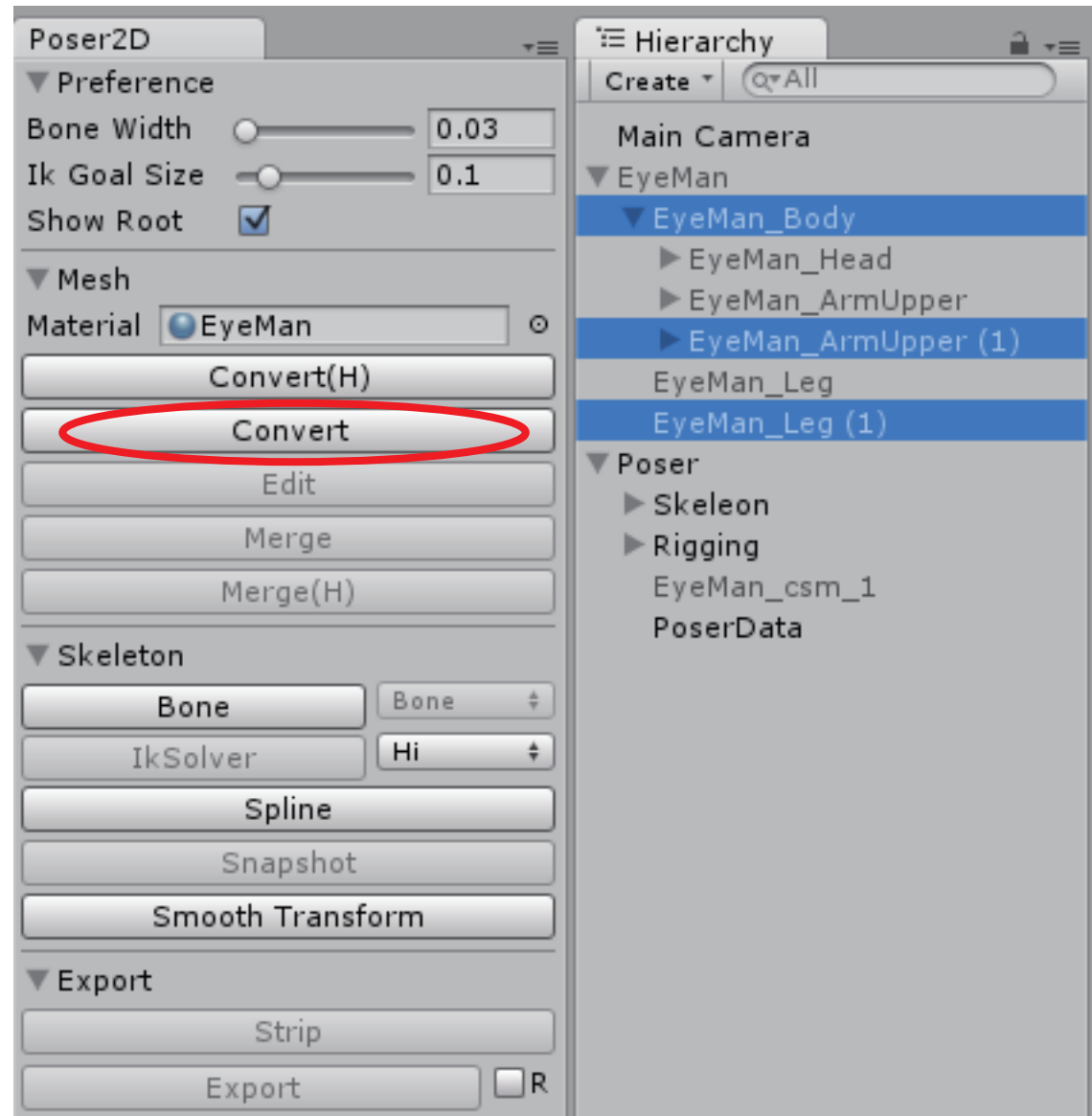
after click button,
create a same hierarchy meshes
and attach to PoserData



Mesh - Covert

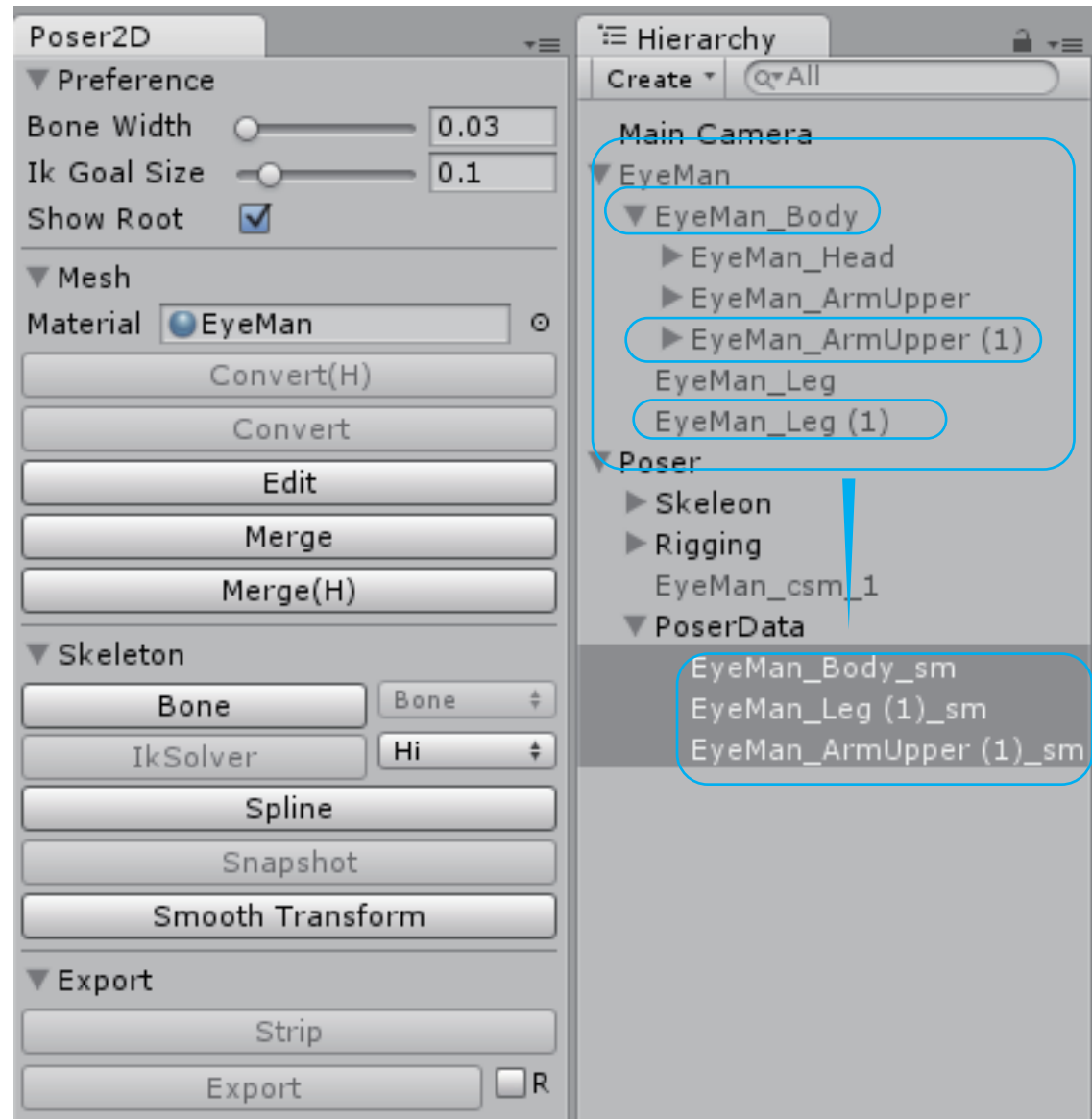
active button

there is at least one sprite in selections



Mesh - Covert

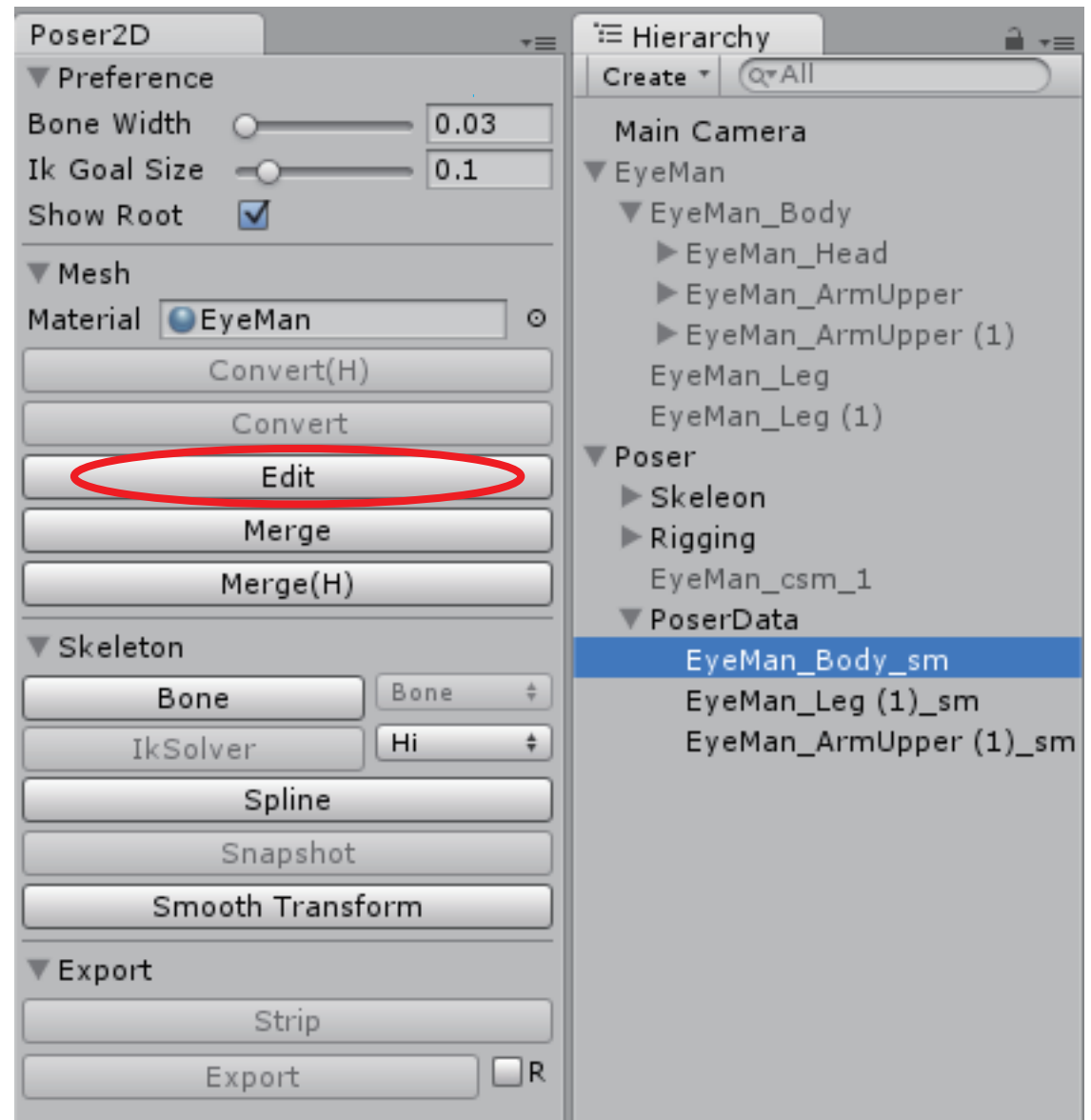
after click button,
create meshes from selections
and attach to PoserData



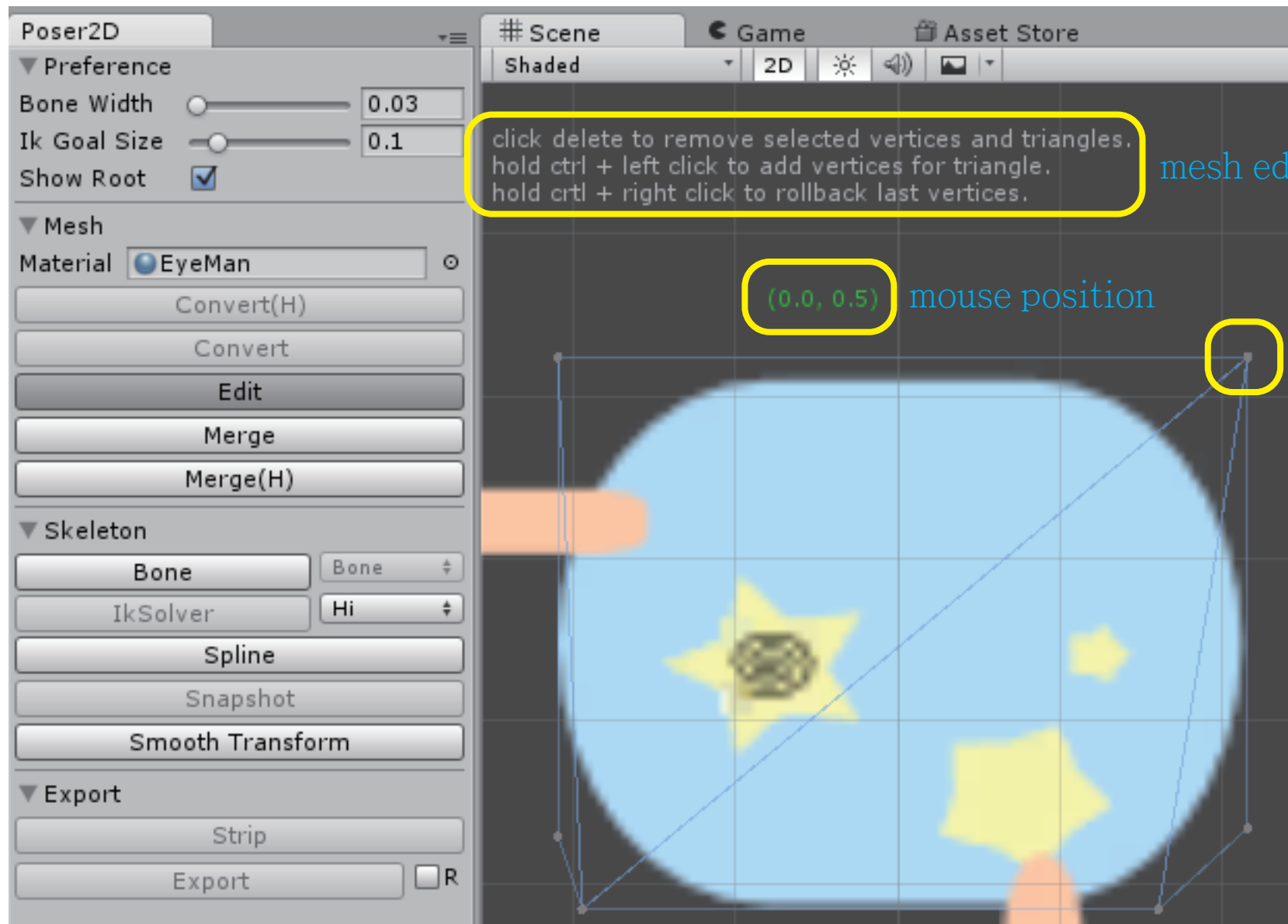
Mesh - Edit

active button

there is a SkinBoneWeights in
the last selection



Mesh - Edit



mesh edit tip

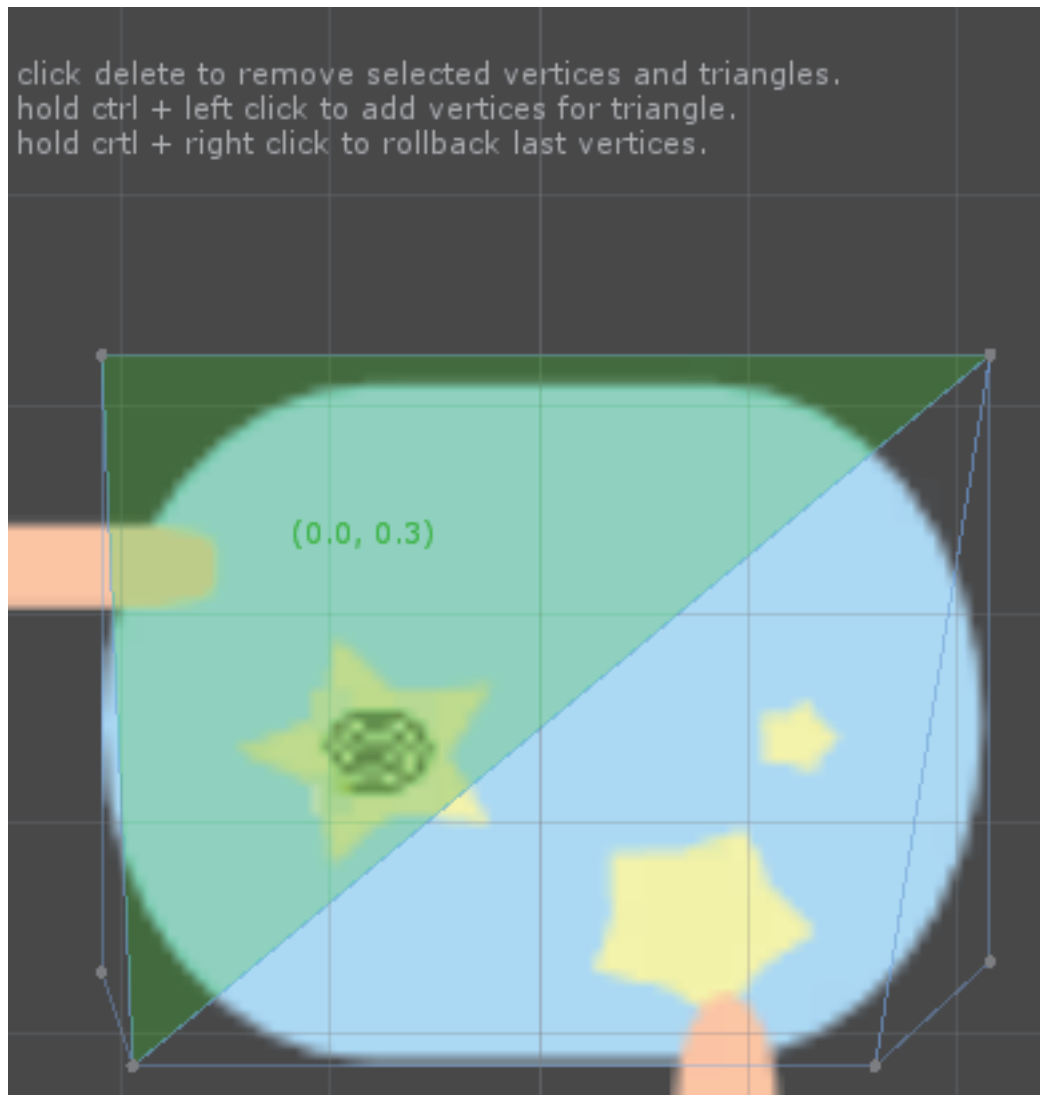
(0.0, 0.5) mouse position

vertex point

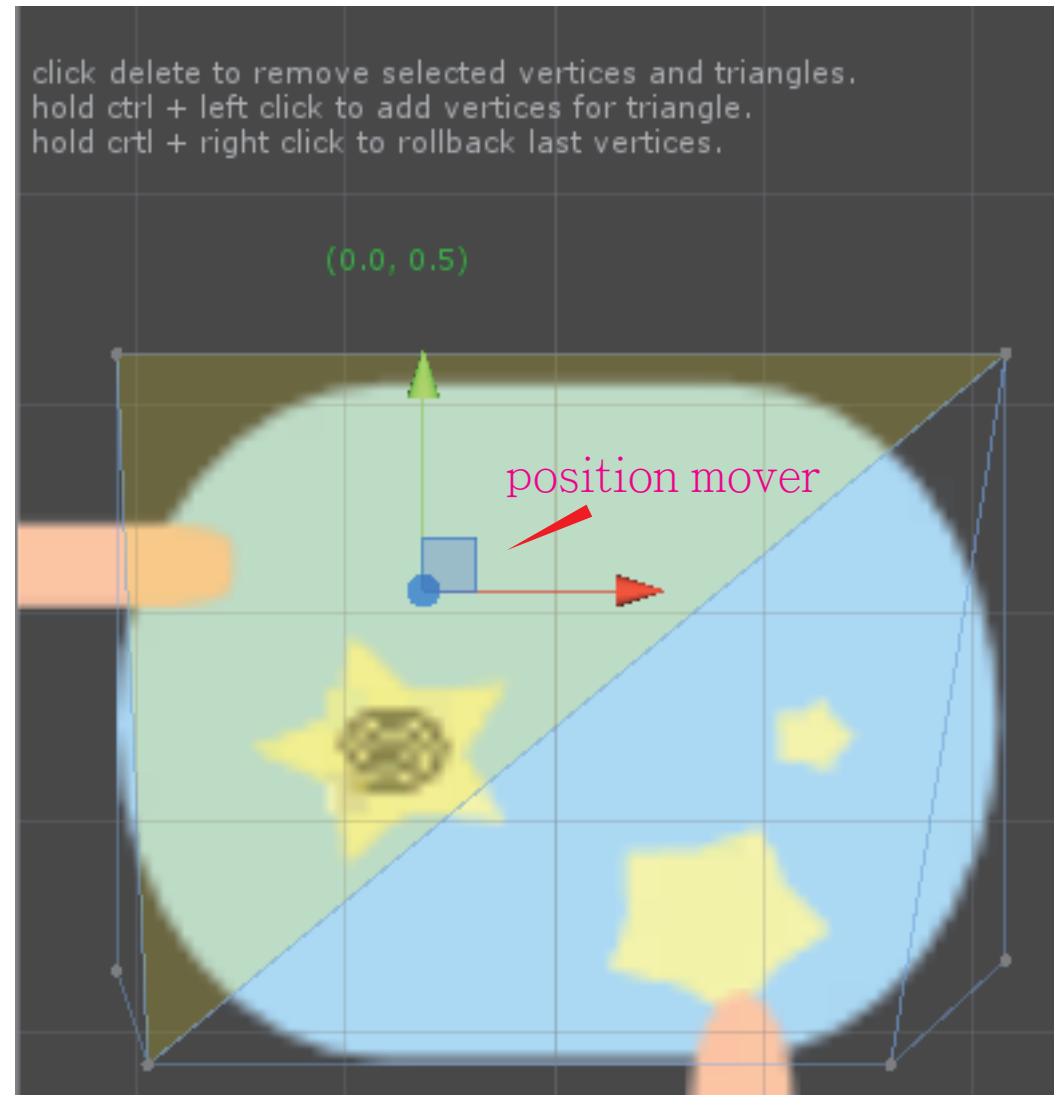
Mesh - Edit

selected triangle could be moved by position mover.
press delete button to remove the selected triangle from mesh

mouse hover triangle



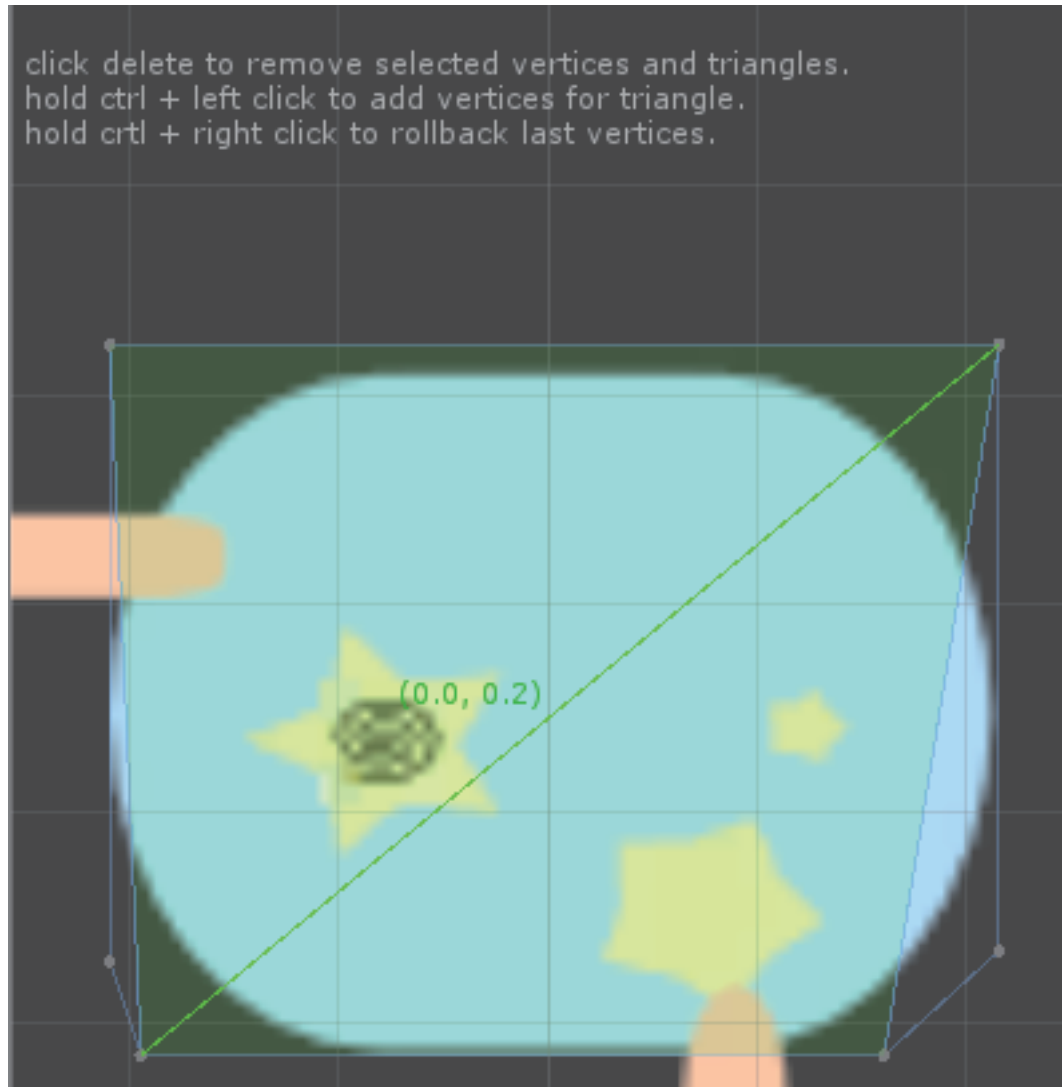
triangle be selected



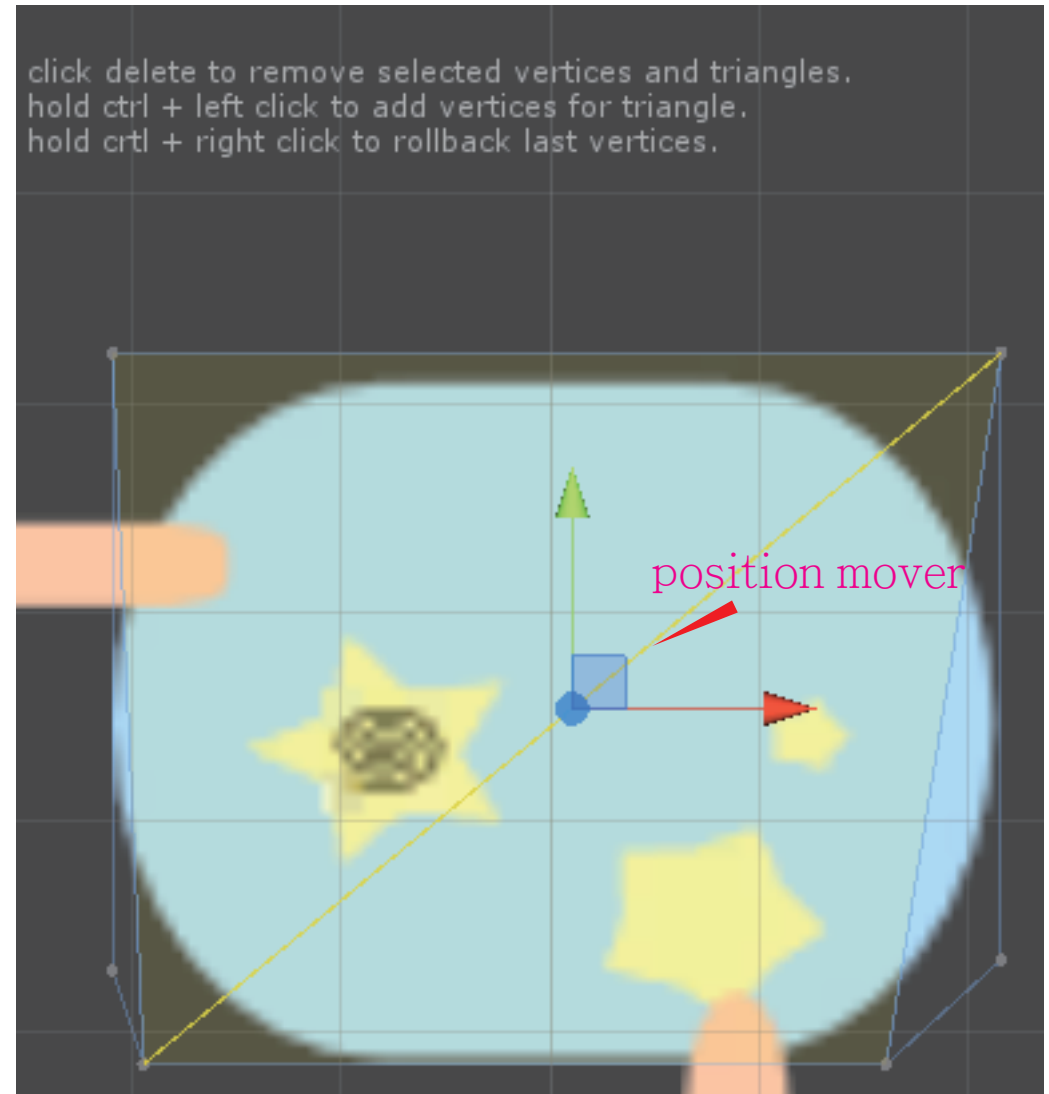
Mesh - Edit

selected line could be moved by position mover.
press delete button to remove the selected line from mesh

mouse hover line



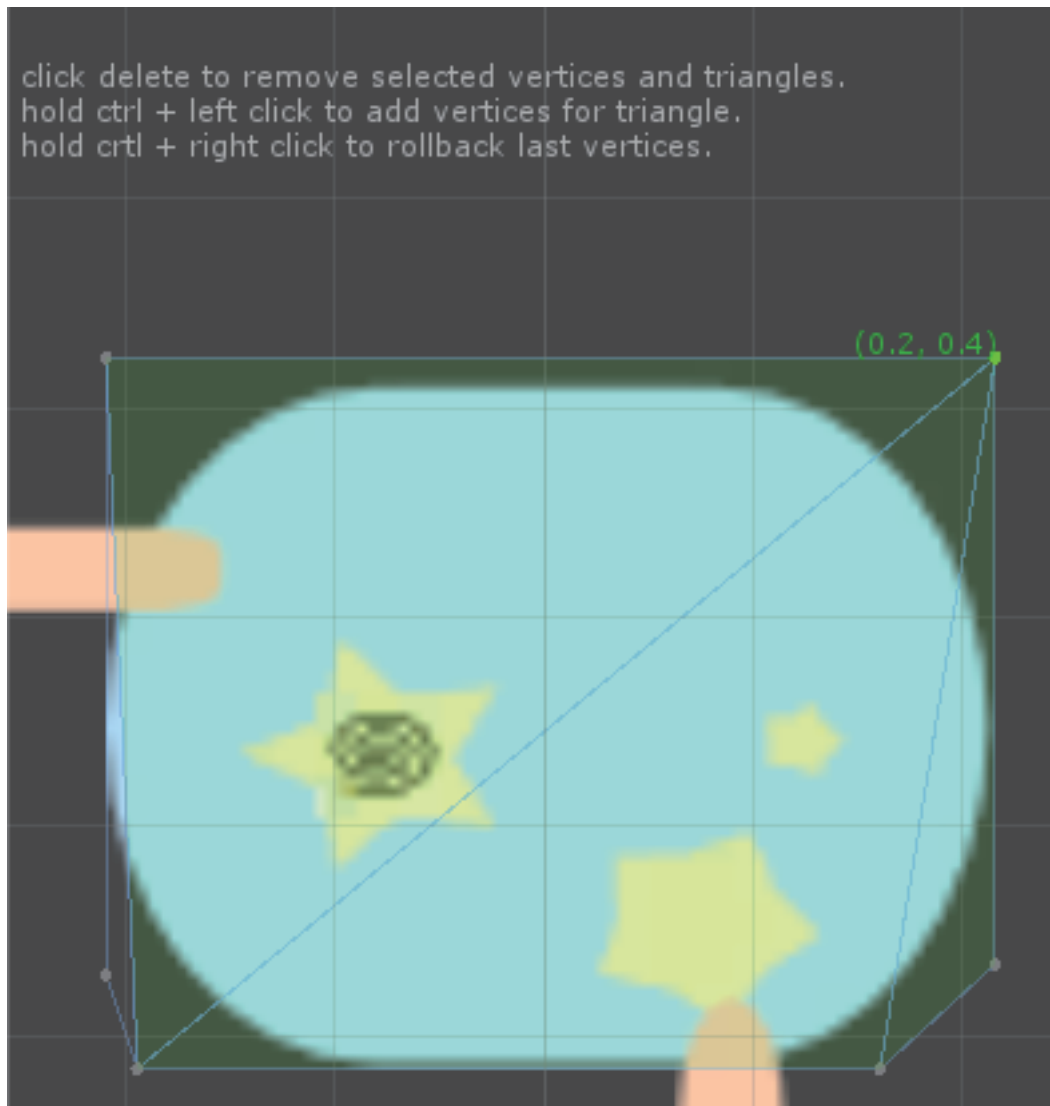
line be selected



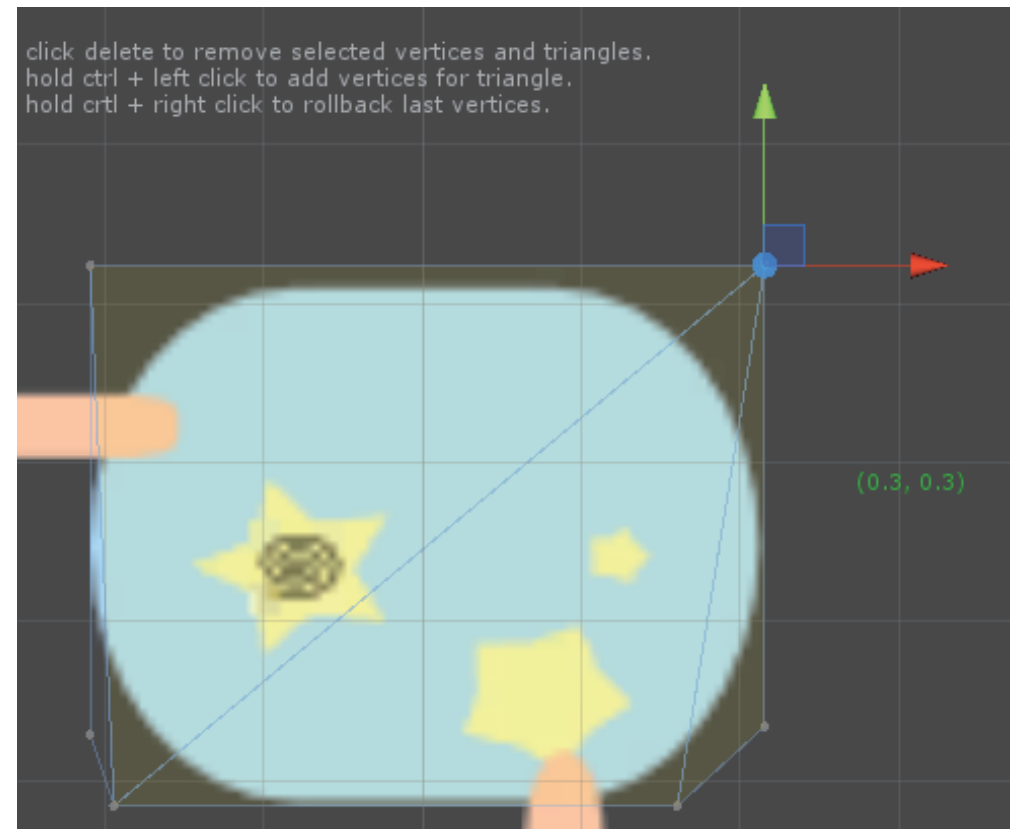
Mesh - Edit

selected vertex could be moved by position mover.
press delete button to remove the selected vertex from mesh

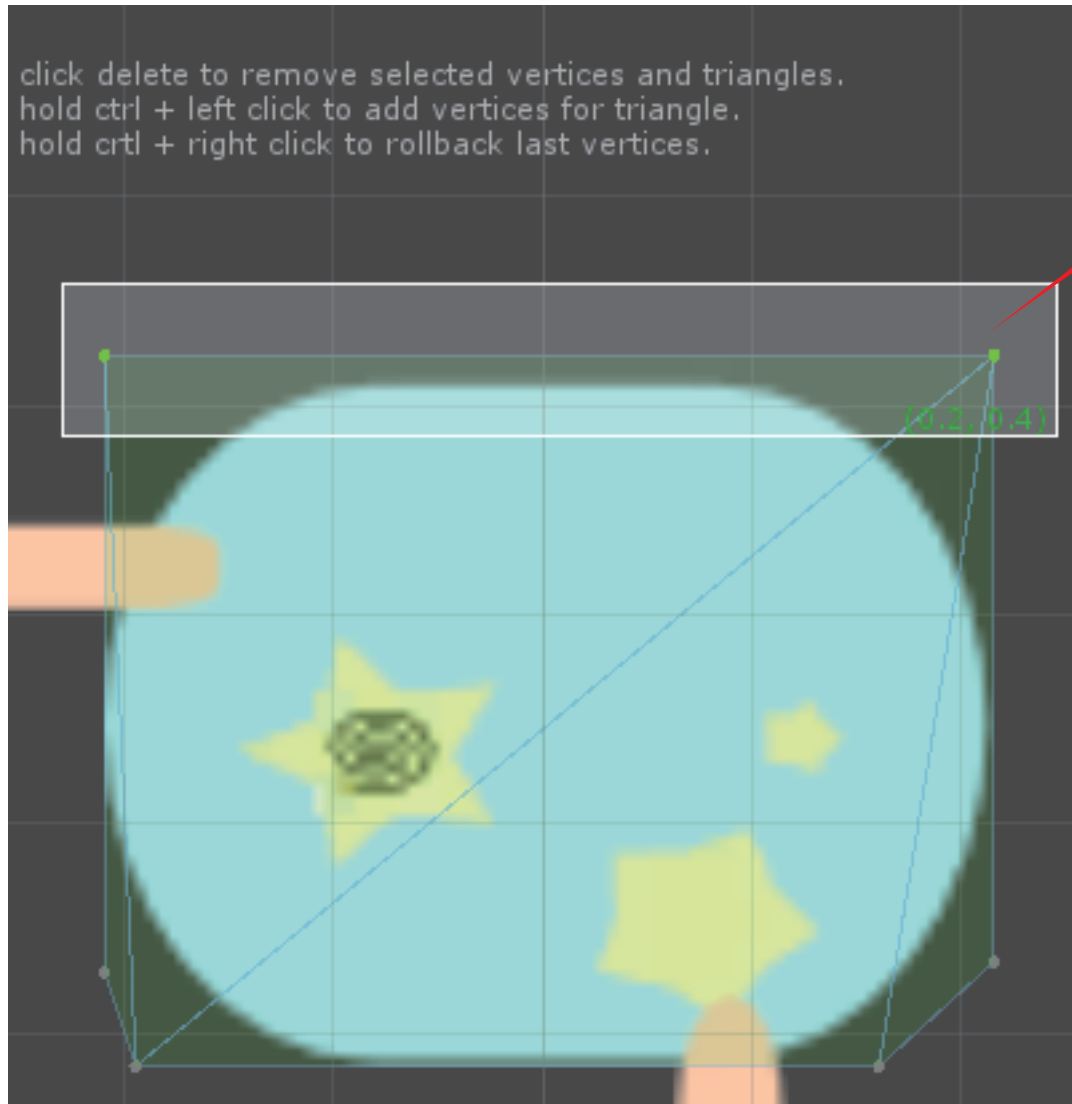
mouse hover vertex



vertex be selected



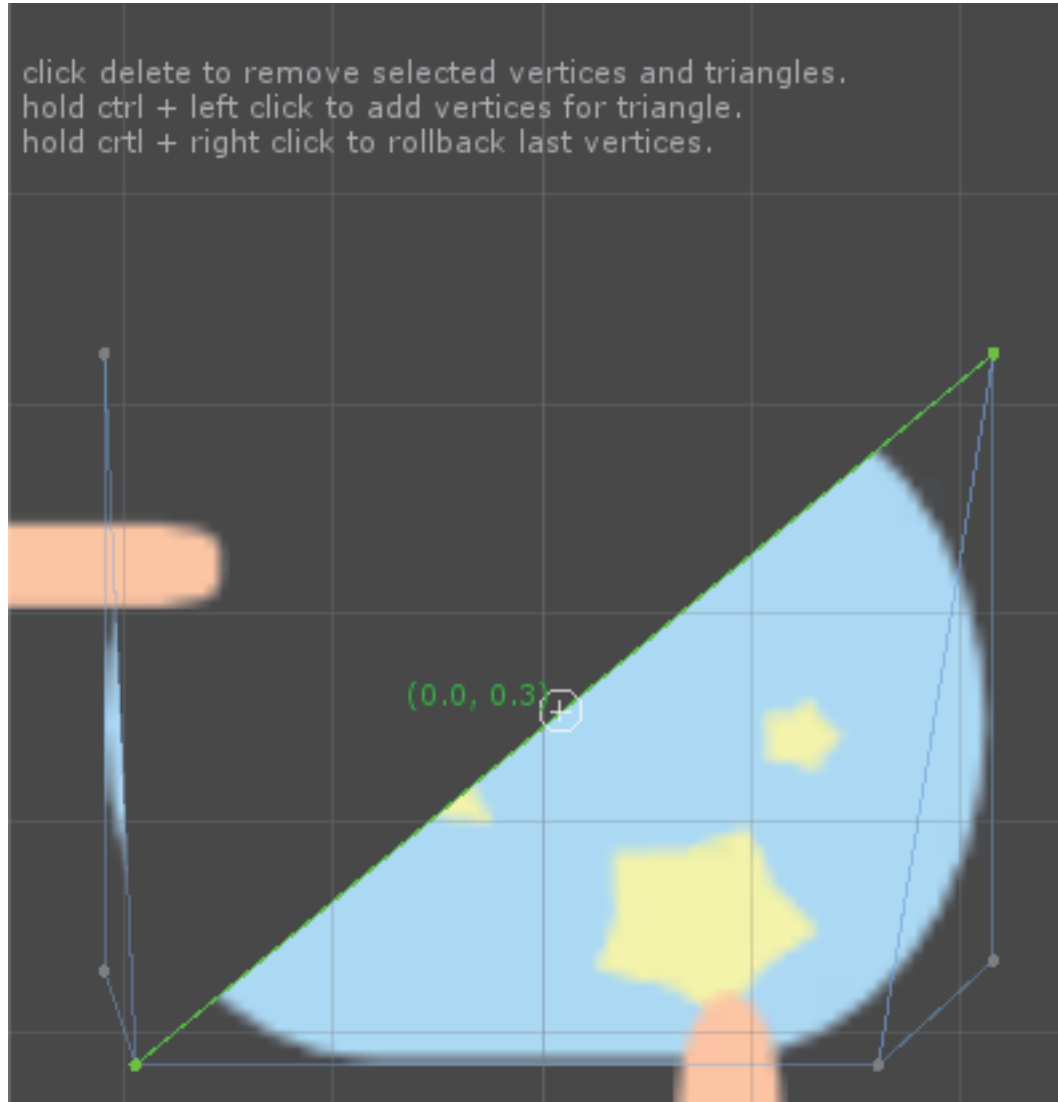
Mesh - Edit



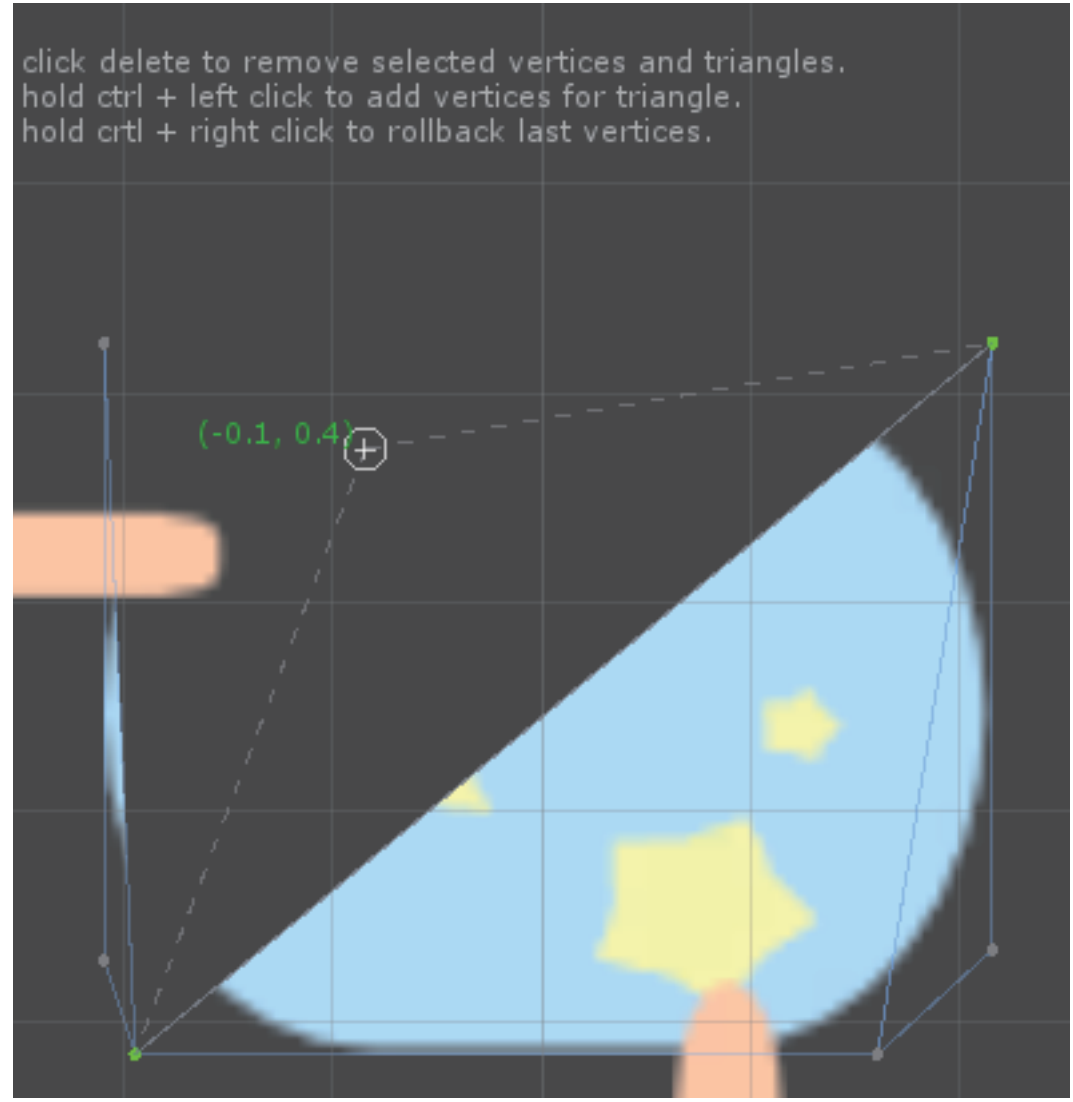
drag rect to select multi vertexs

Mesh - Edit - Add Triangle (Hold Ctrl)

click to select line

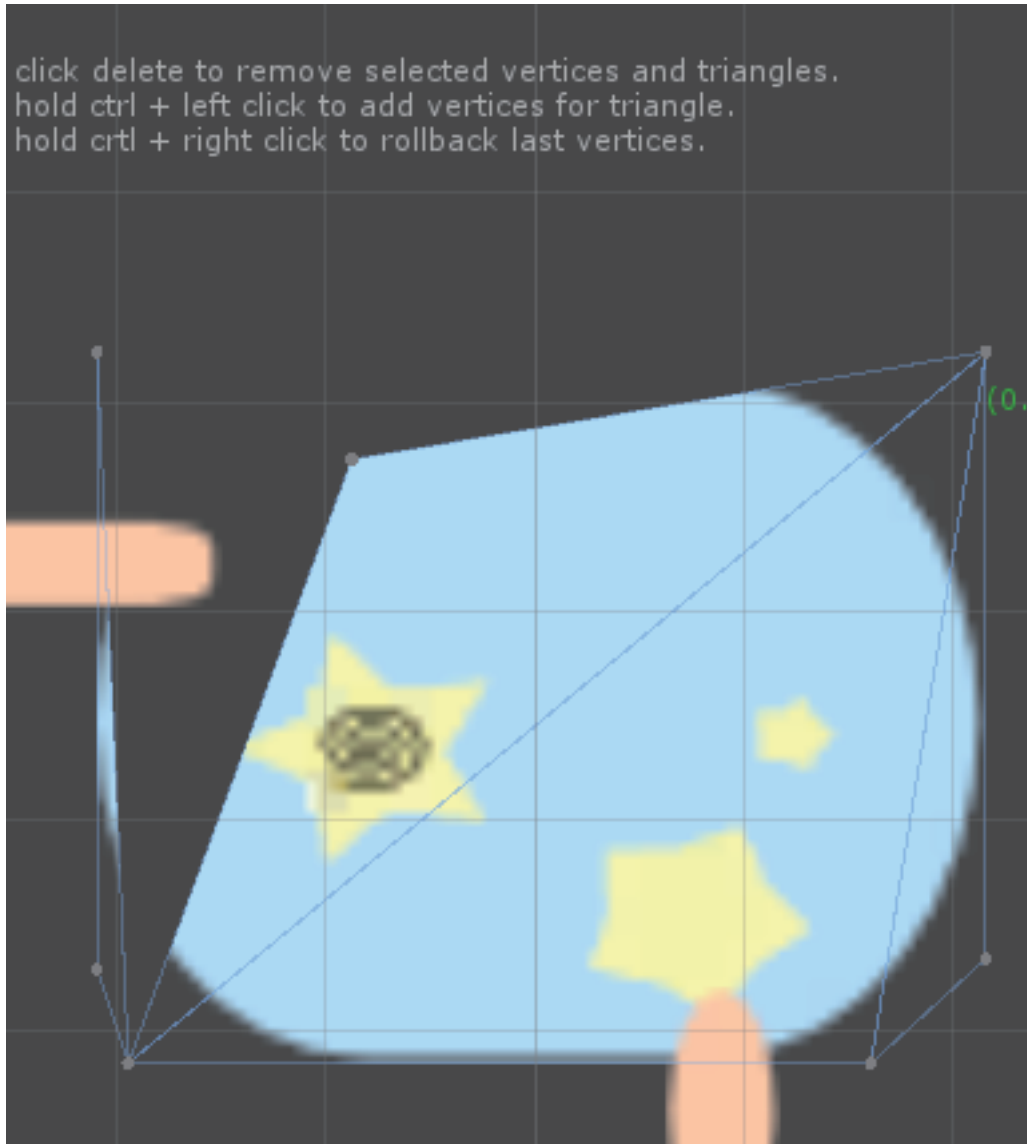


drag out to third point



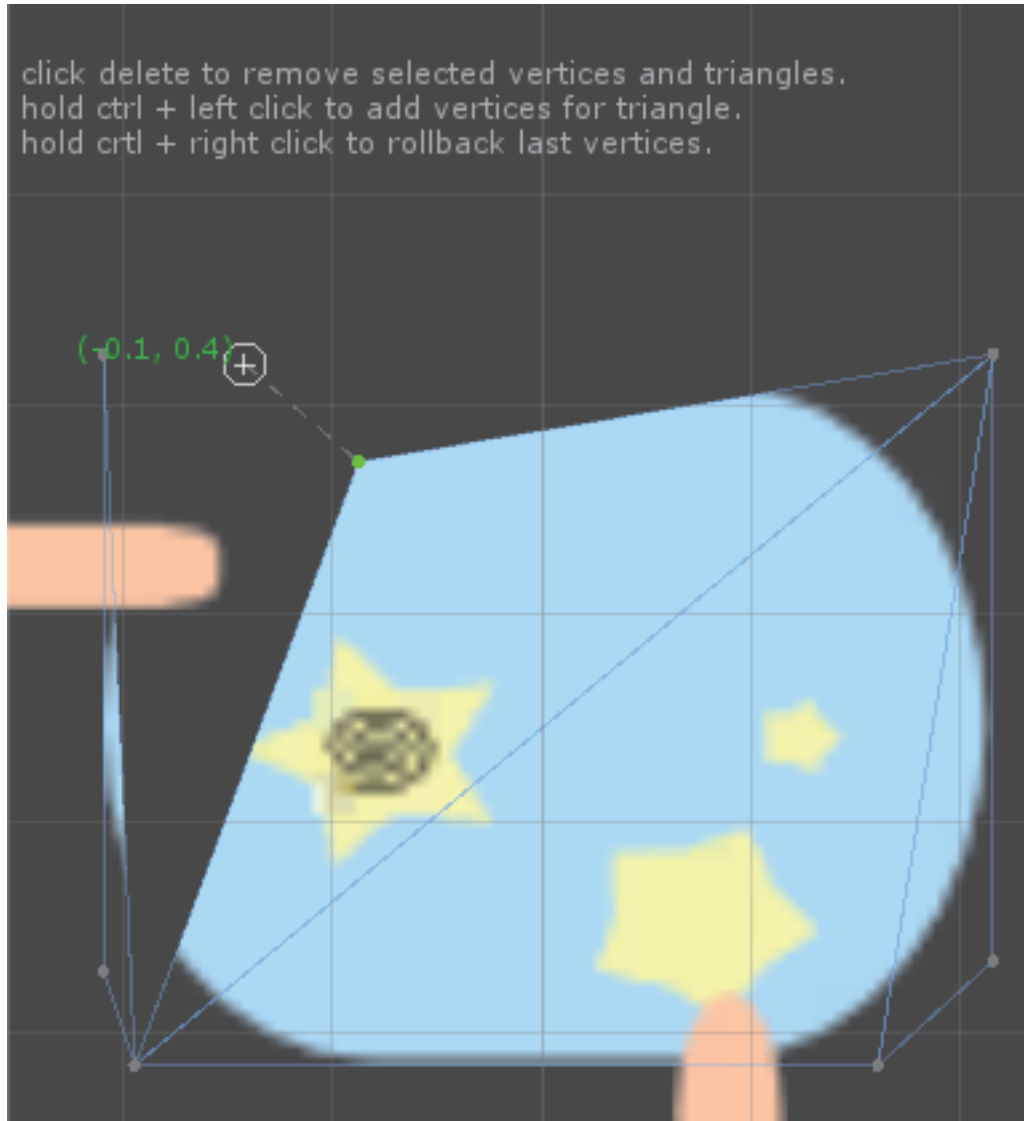
Mesh - Edit - Add Triangle (Hold Ctrl)

click to create a triangle

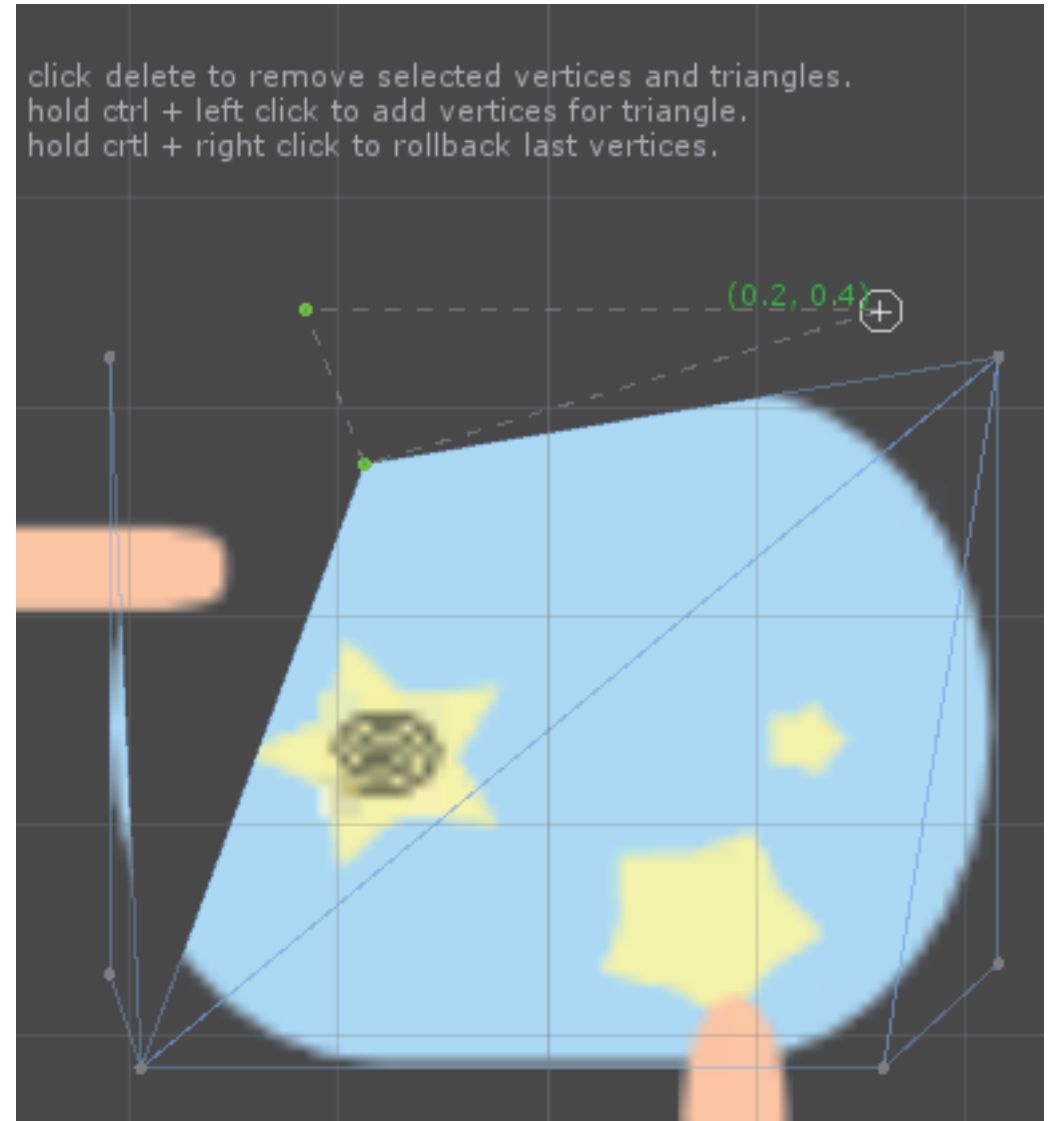


Mesh - Edit - Add Triangle (Hold Ctrl)

click first point then moving to second point

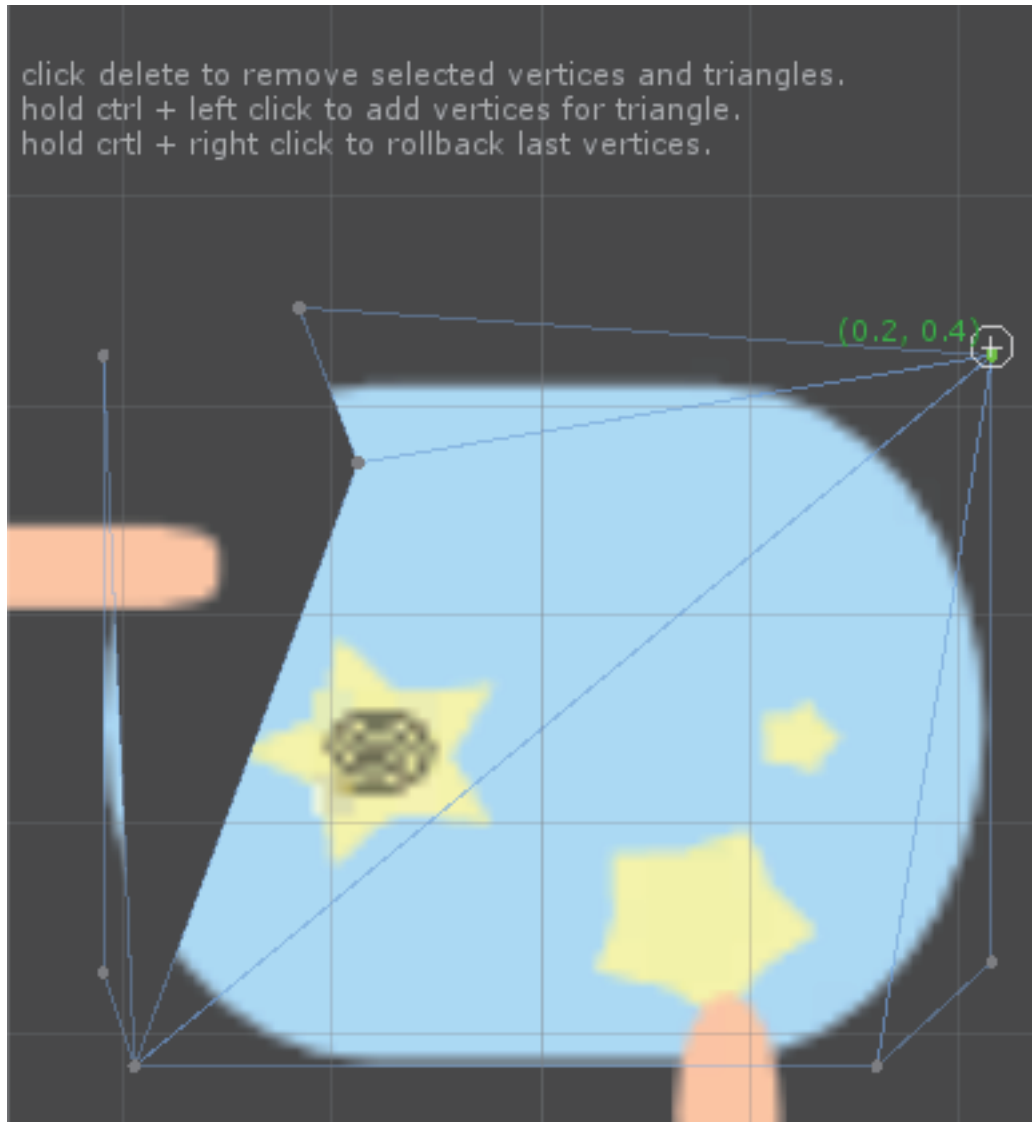


click second point then moving to third point



Mesh - Edit - Add Triangle (Hold Ctrl)

click at third point to create a triangle



Mesh - Merge

Merge - active button

there is at least one SkinBoneWeights in the selections.

Merge(H) - active button

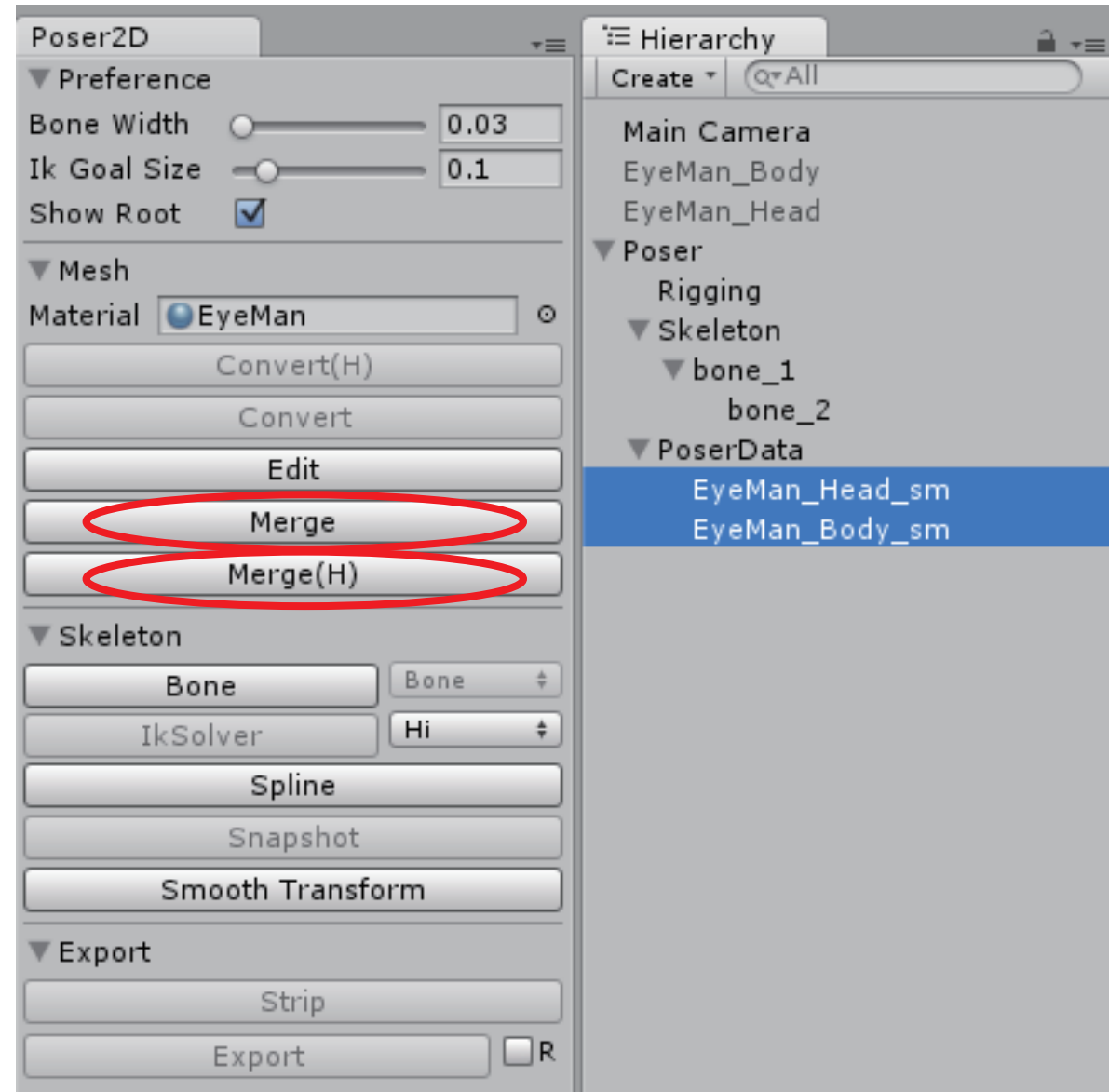
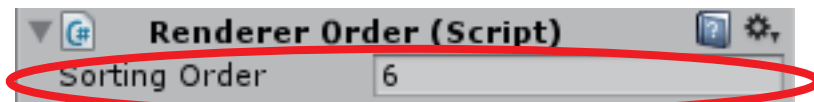
there is at least one SkinBoneWeights in the last selection or children

click button

if there is not any Bone, warning will be displayed.

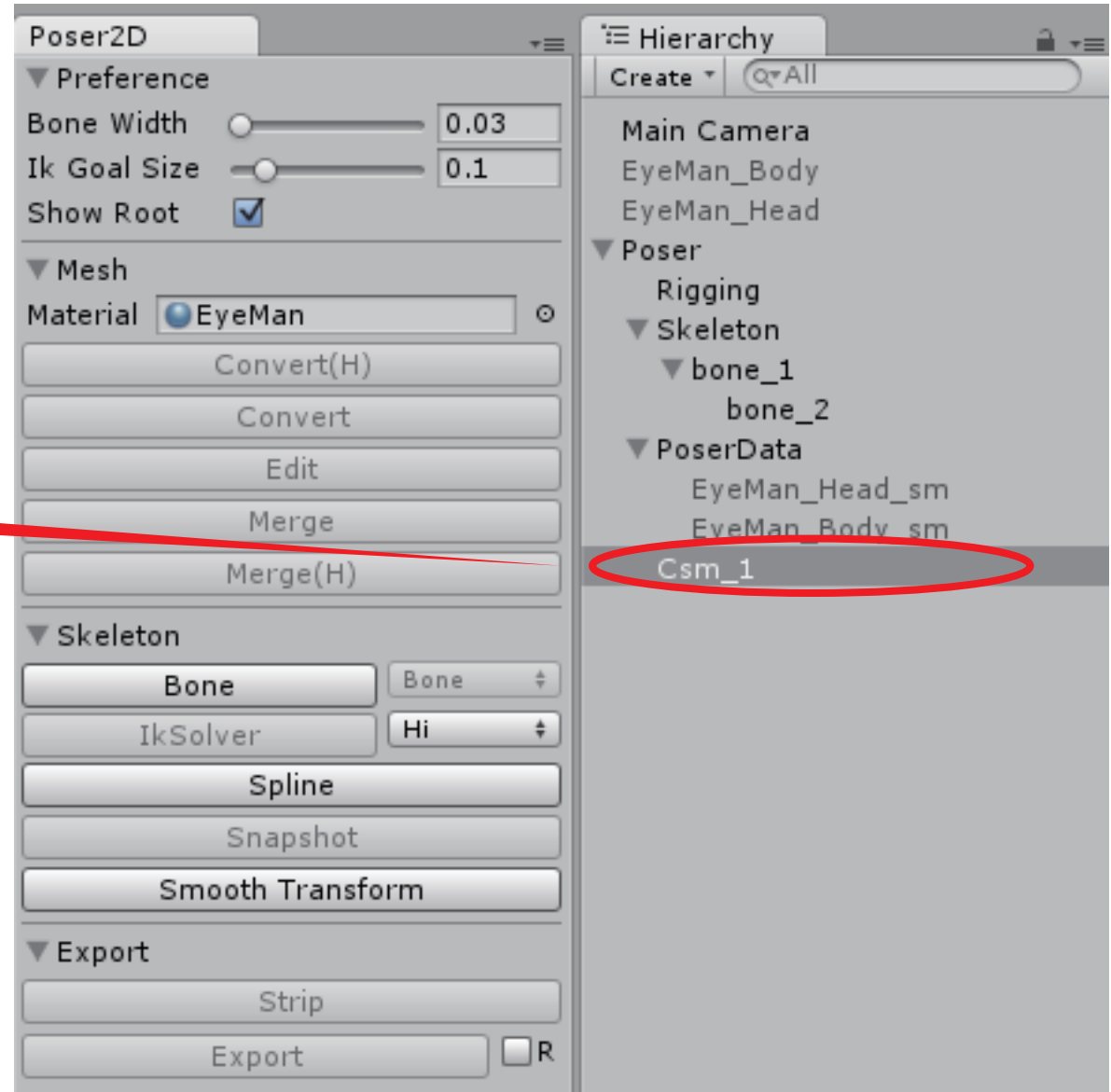
Choice the file path to save merged mesh

merge order depend by sortingOrder

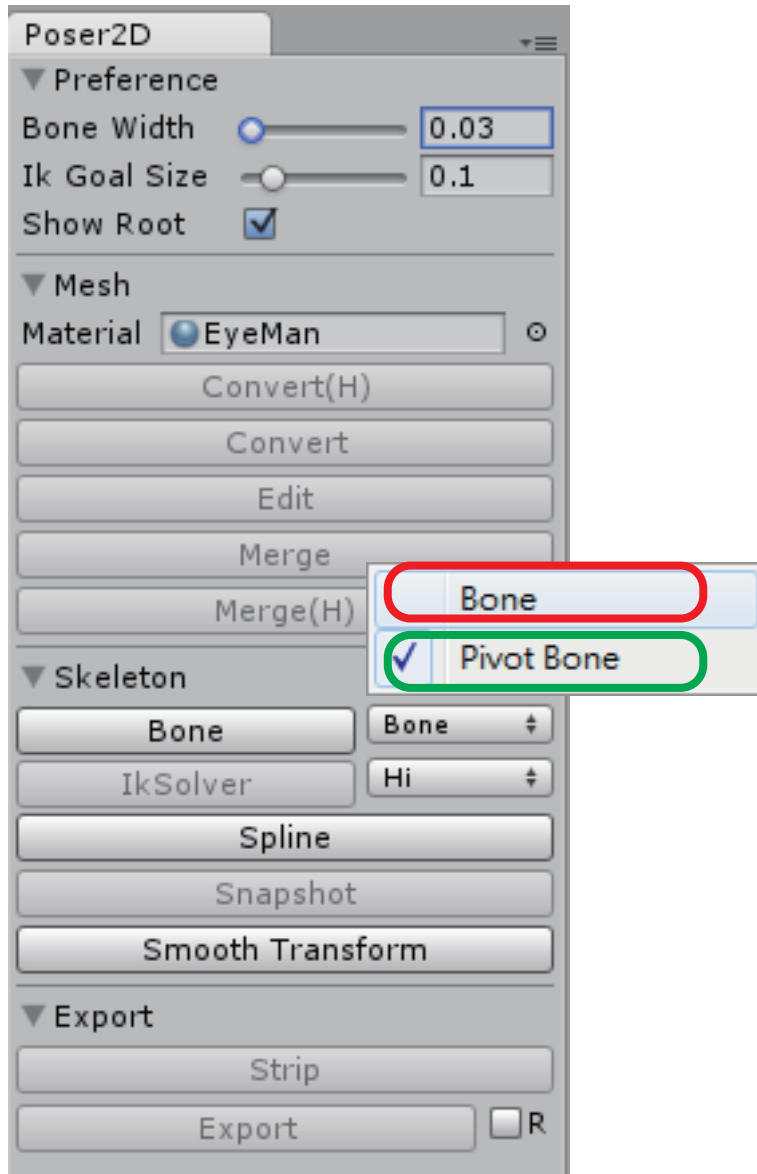


Mesh - Merge

After merge, merged mesh will be selected



Skeleton - Bone

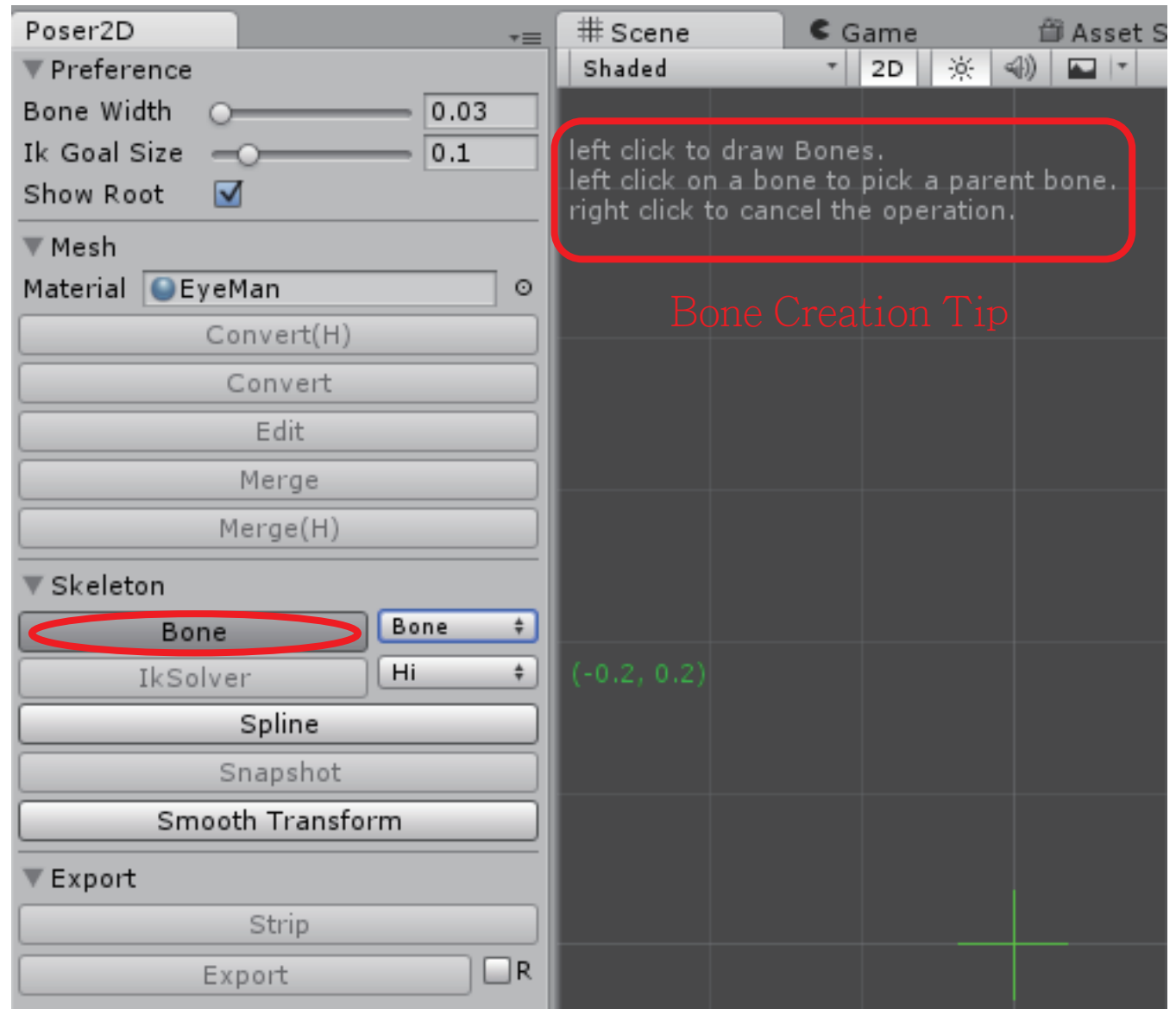


Bone - A child of **Bone** will influence rotation of parent **Bone**. Every time changed parent will recalculate relation to parent of **Bone**

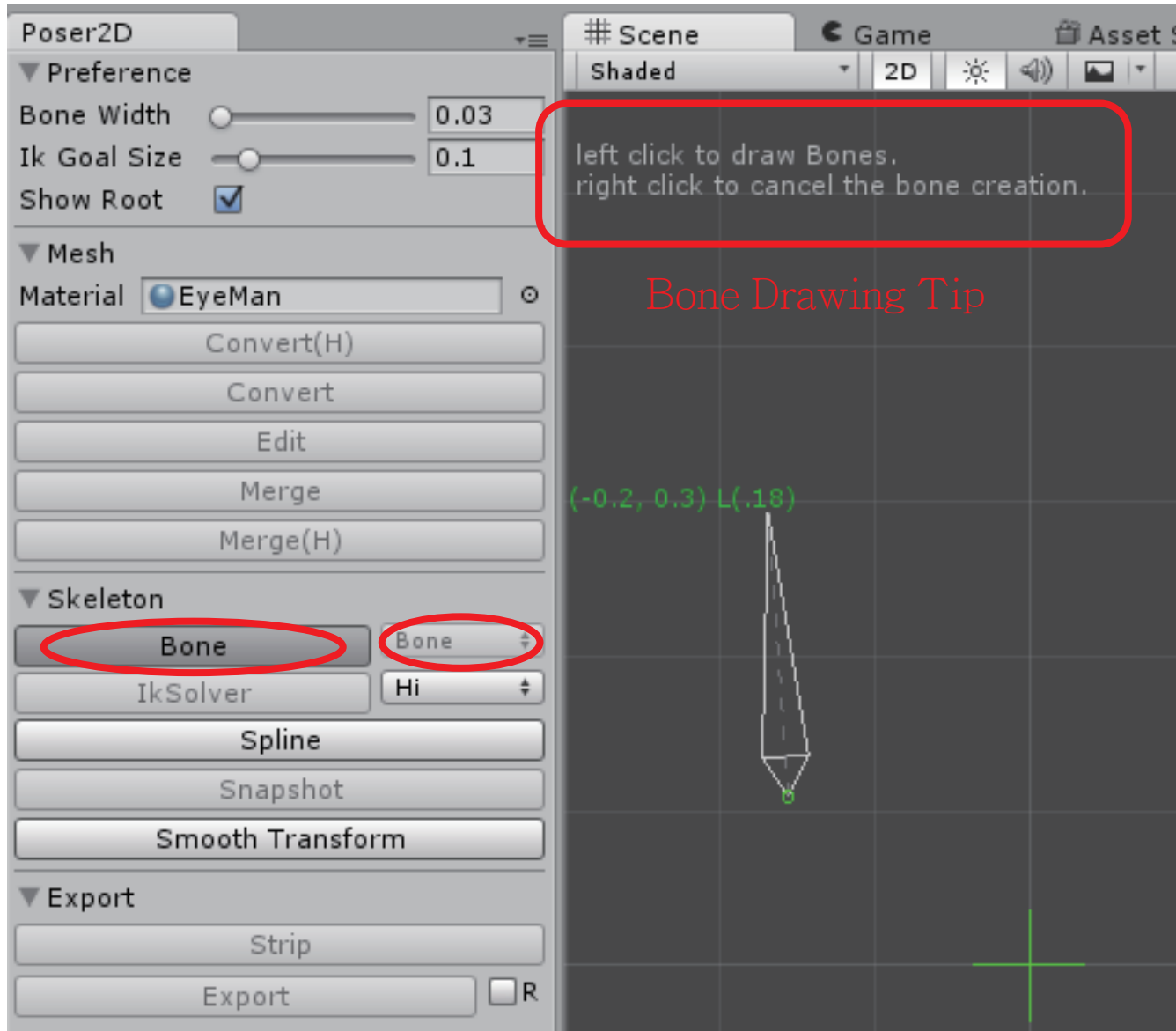
Pivot Bone - A child of **Pivot Bone** will not influence rotation of parent of **Bone**

Skeleton - Bone - Bone

Click Bone button to active Bone Creation.

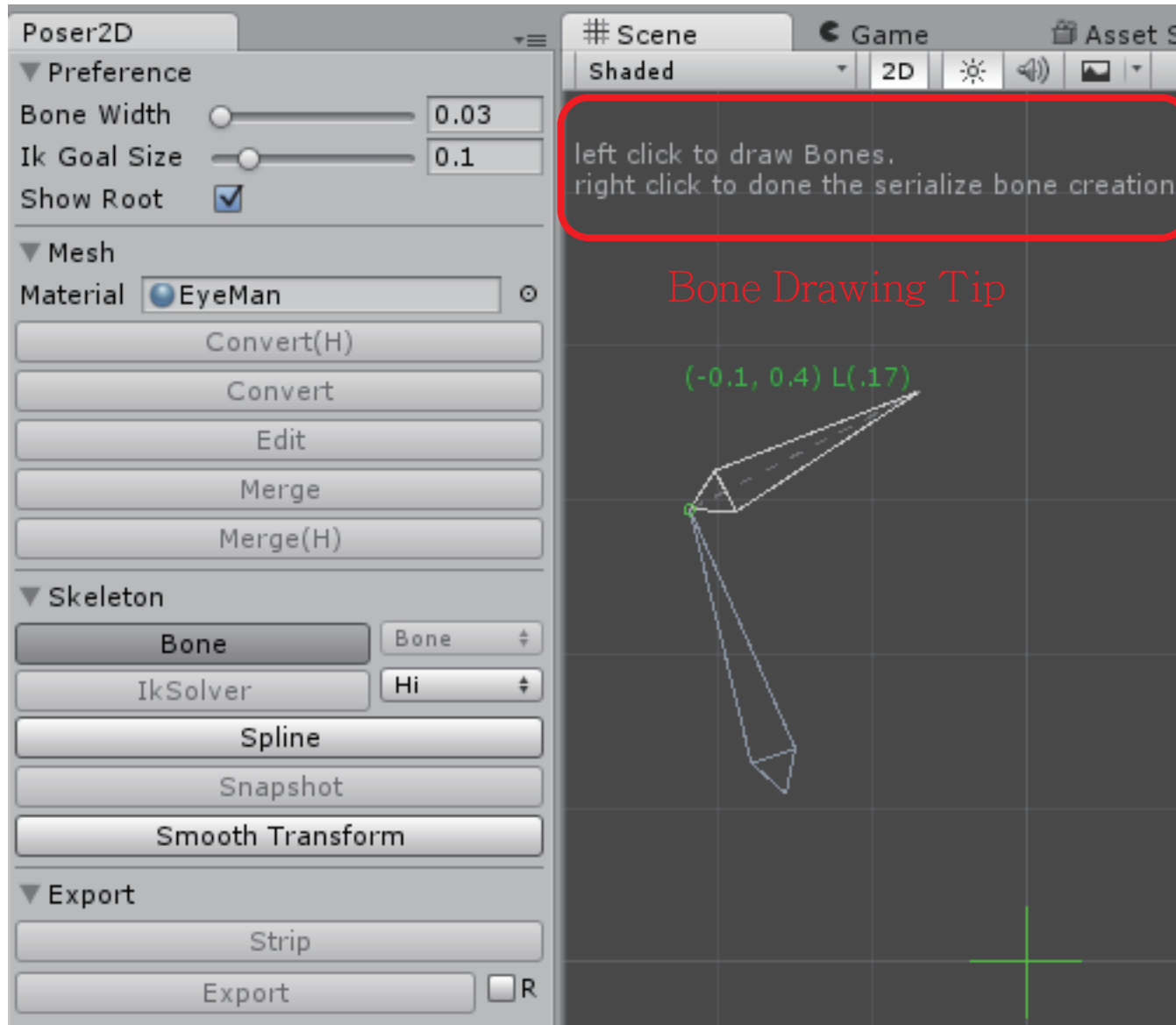


Skeleton - Bone - Bone - 1



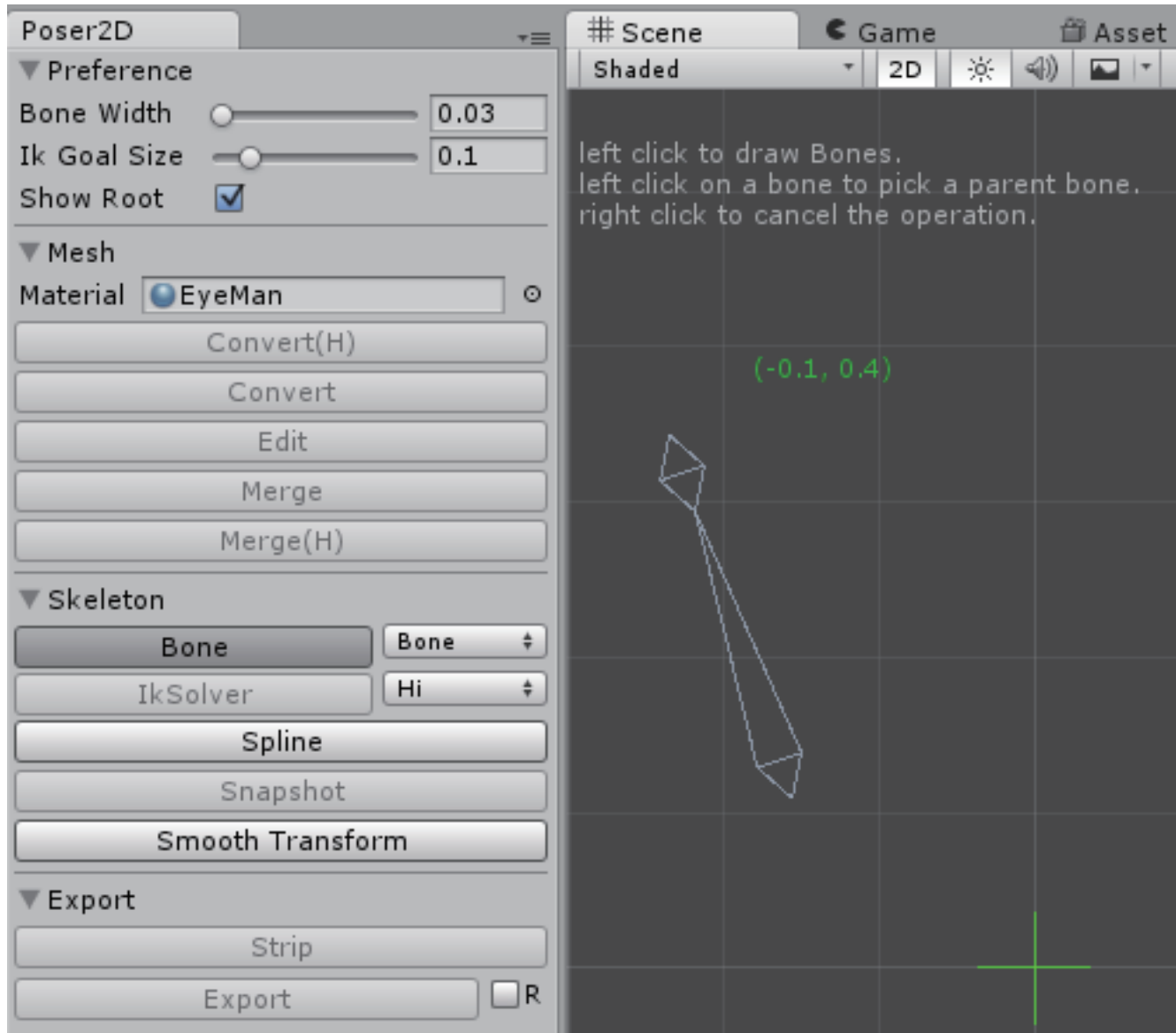
left click then moving out to
draw a bone

Skeleton - Bone - Bone - 2



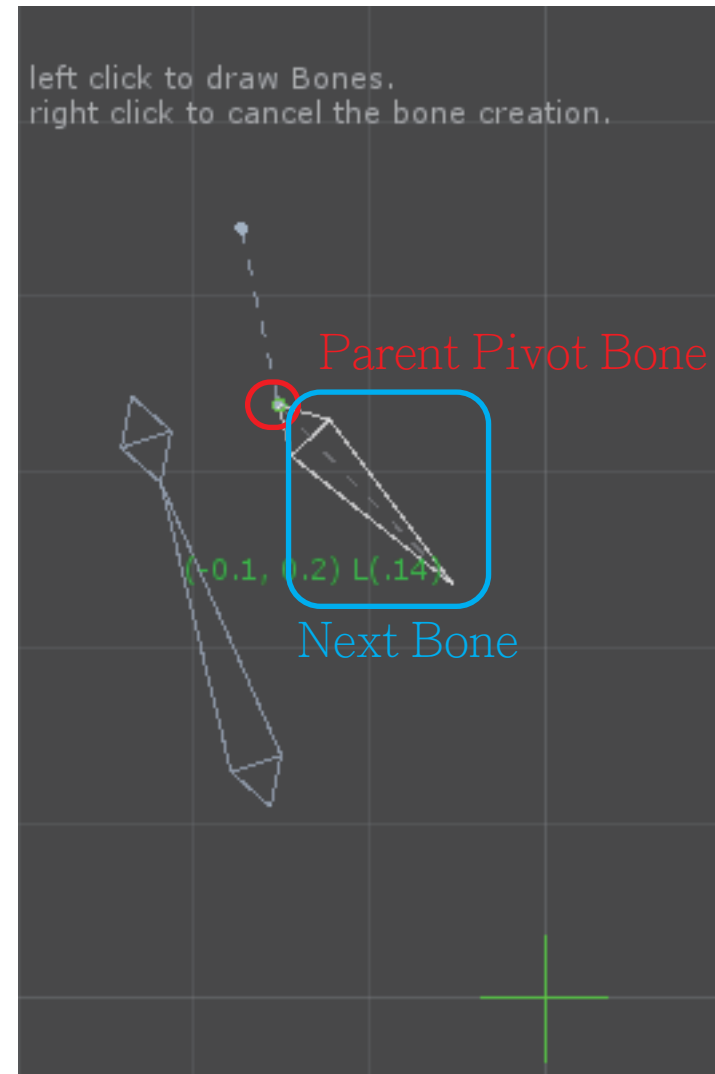
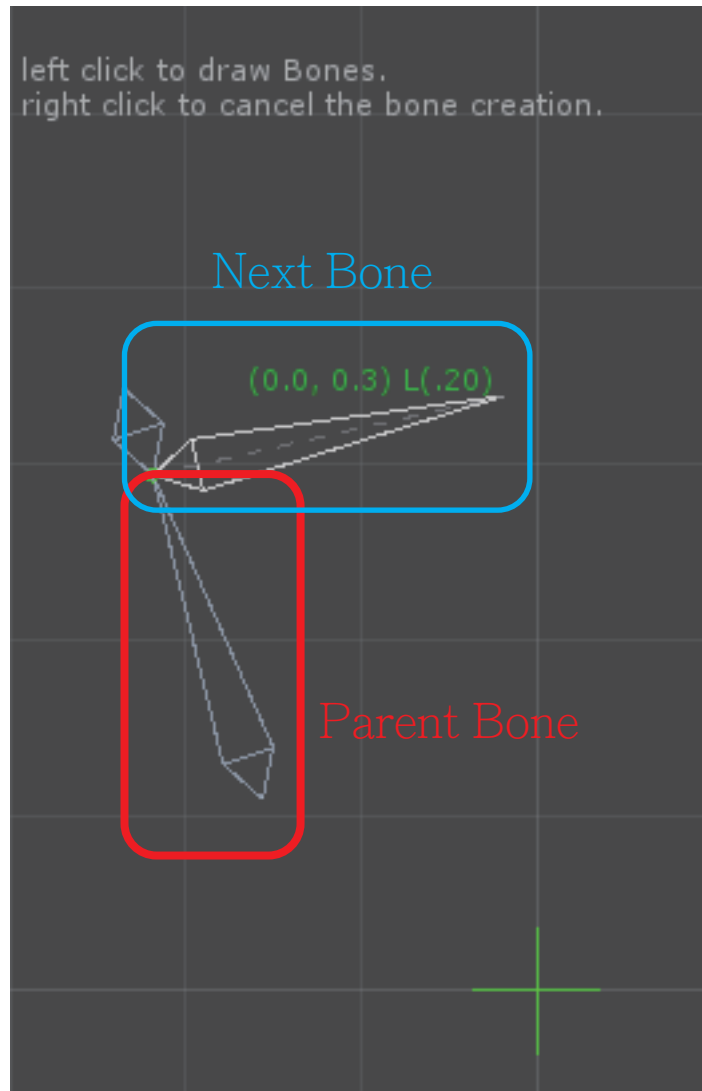
left click to created a bone then
moving out to draw next child bone

Skeleton - Bone - Bone - 3

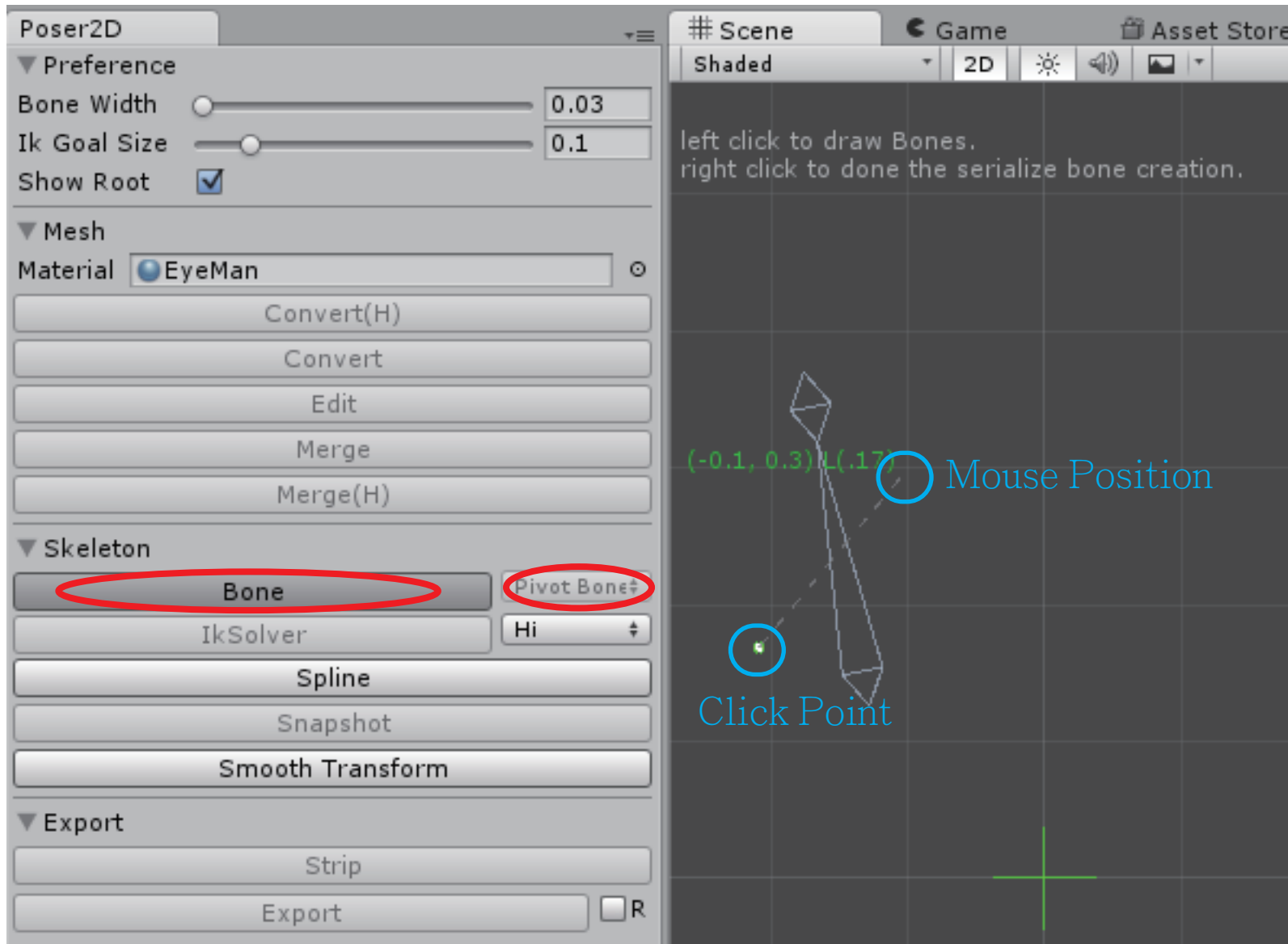


right click to created a bone then
finish the bone creation

Skeleton - Bone - Bone - PickParent

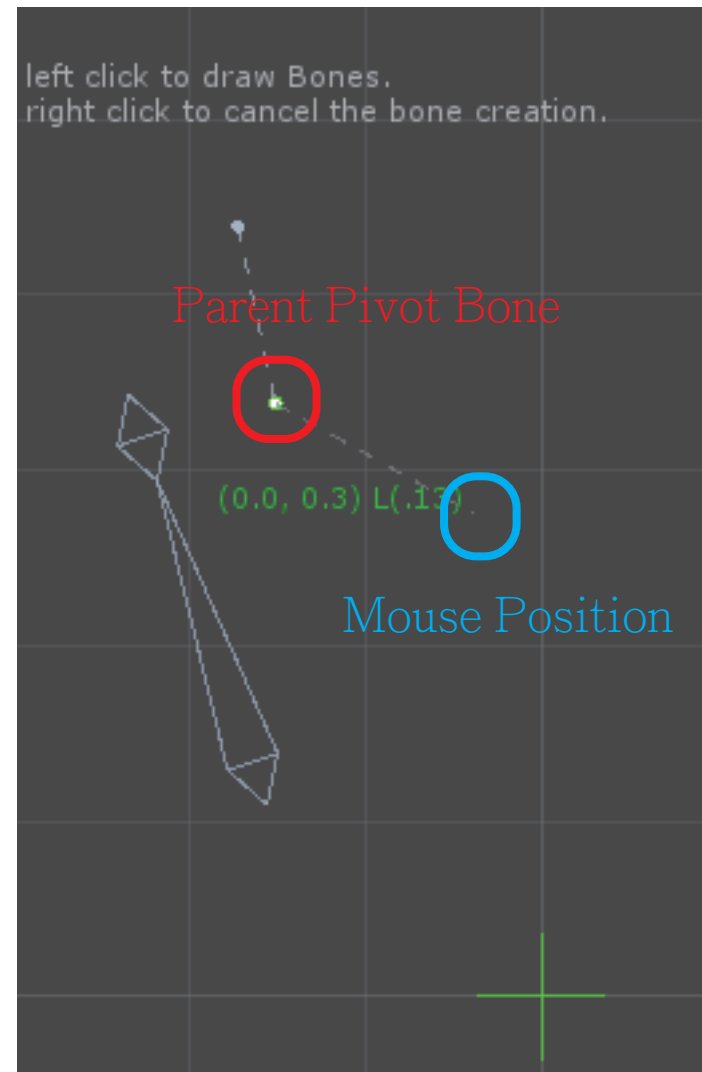
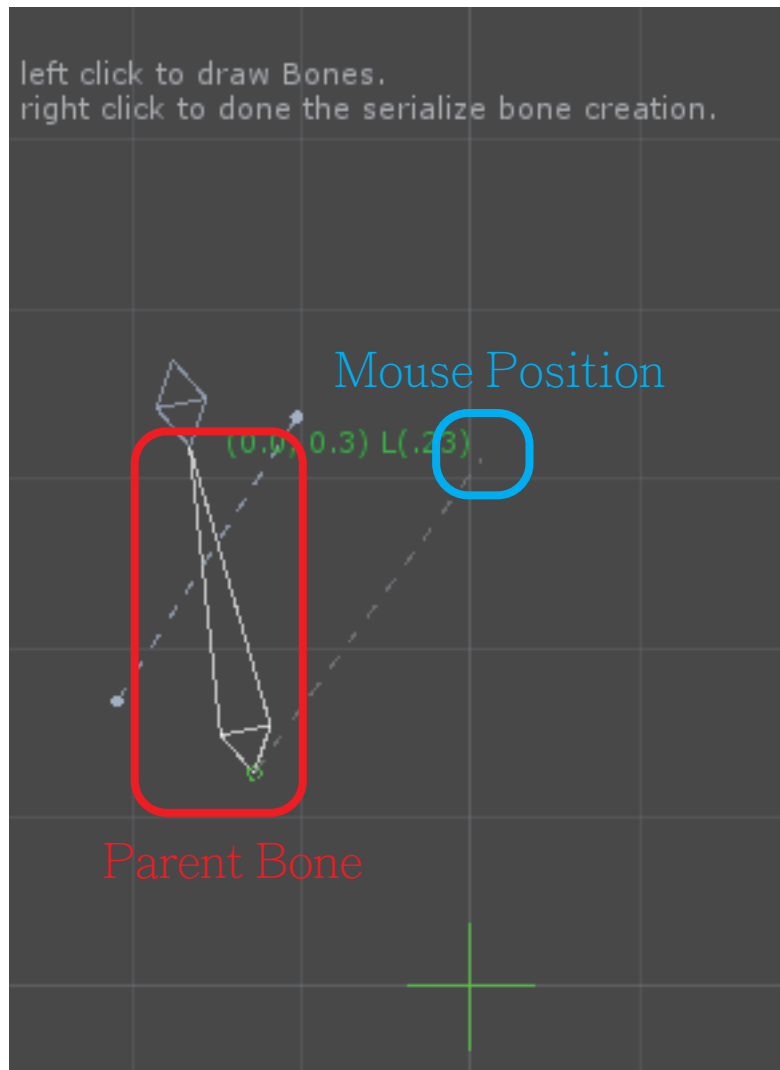


Skeleton - Bone - PivotBone



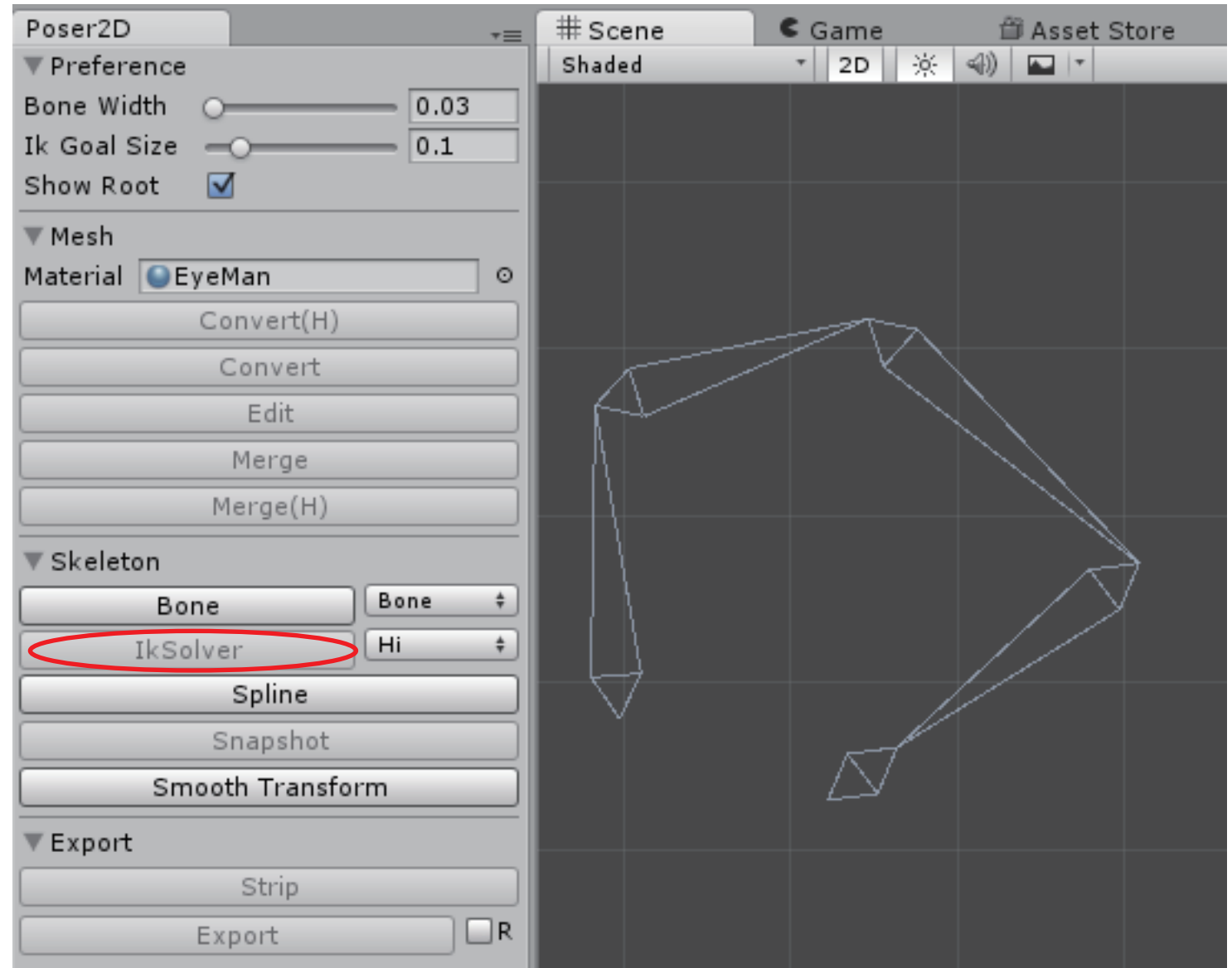
left click to create a pivot bone then moving out to create next one.

Skeleton - Bone - PivotBone - PickParent

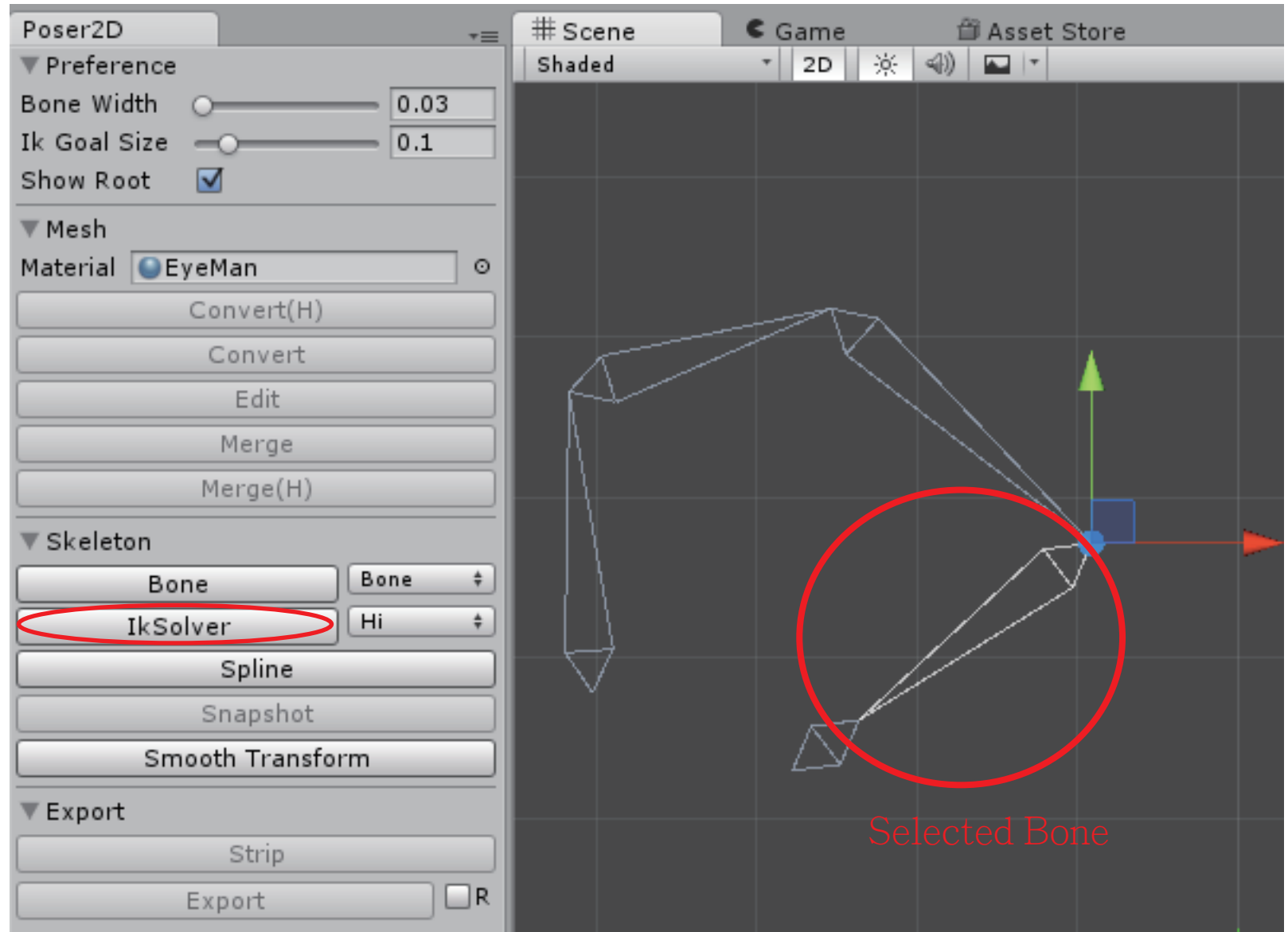


Skeleton - IkSolver - Unactive

Select a **Bone** to active
IkSolver button



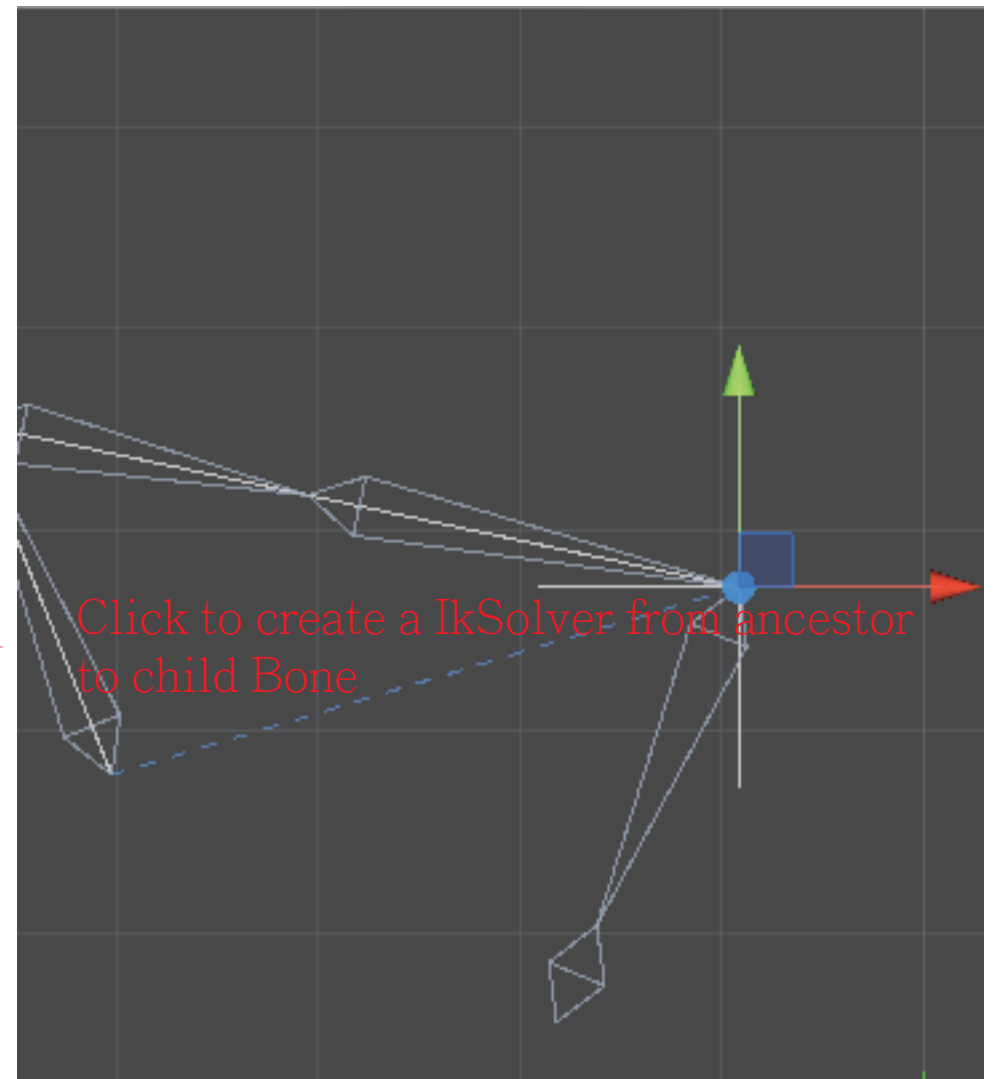
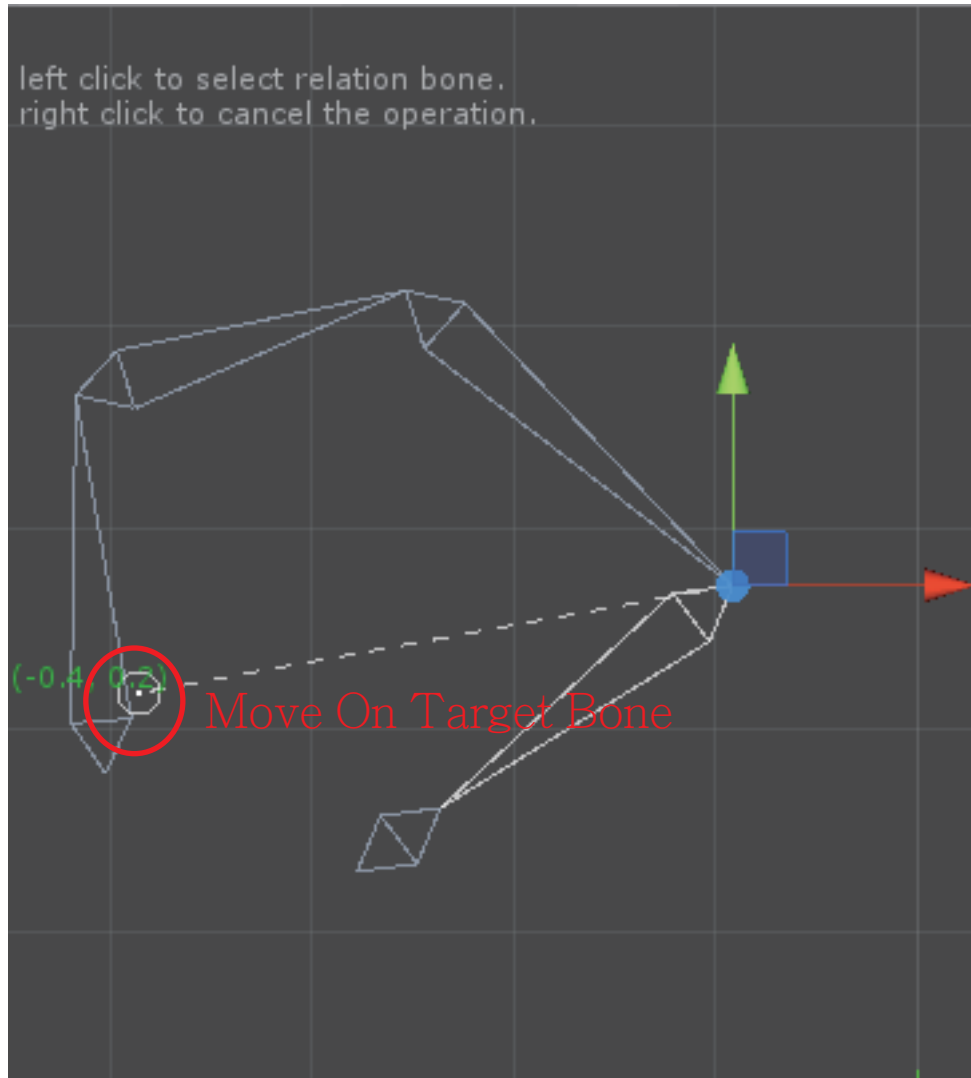
Skeleton - IkSolver - Active



Click IkSolver button to create a IkSolver.

Skeleton - IkSolver - Creation

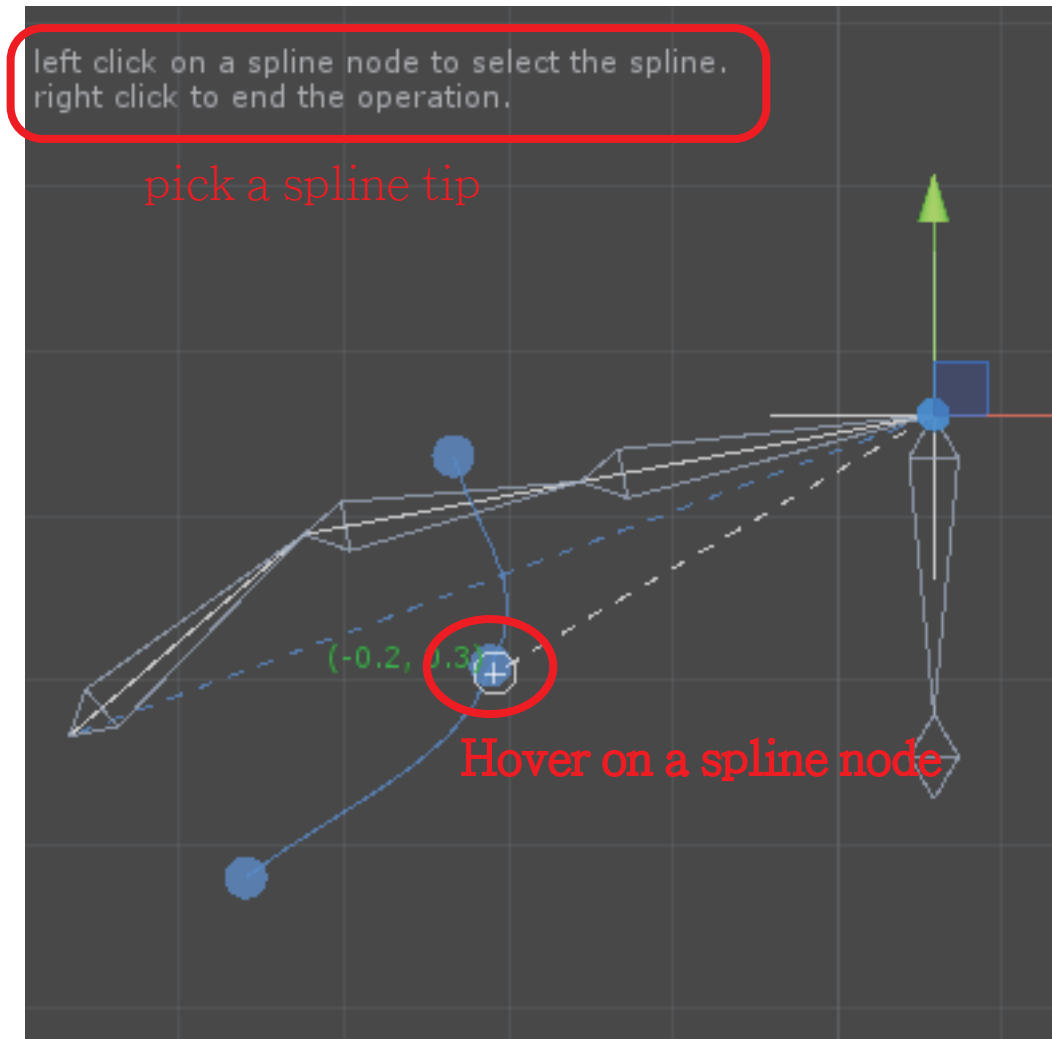
IkSolver Limb is only from ancestor to child bone with max 2 levels



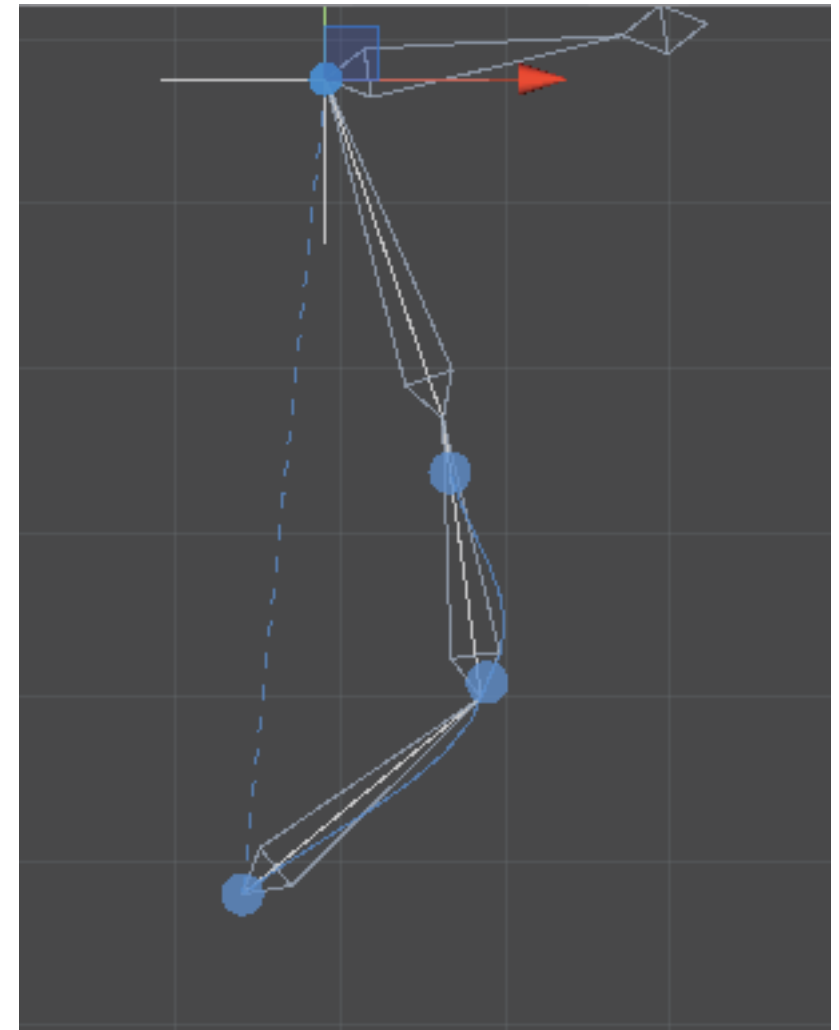
Skeleton - IkSolver - Creation - Spline

after created IkSolverSpline, you could assign a spline to IkSolverSpline

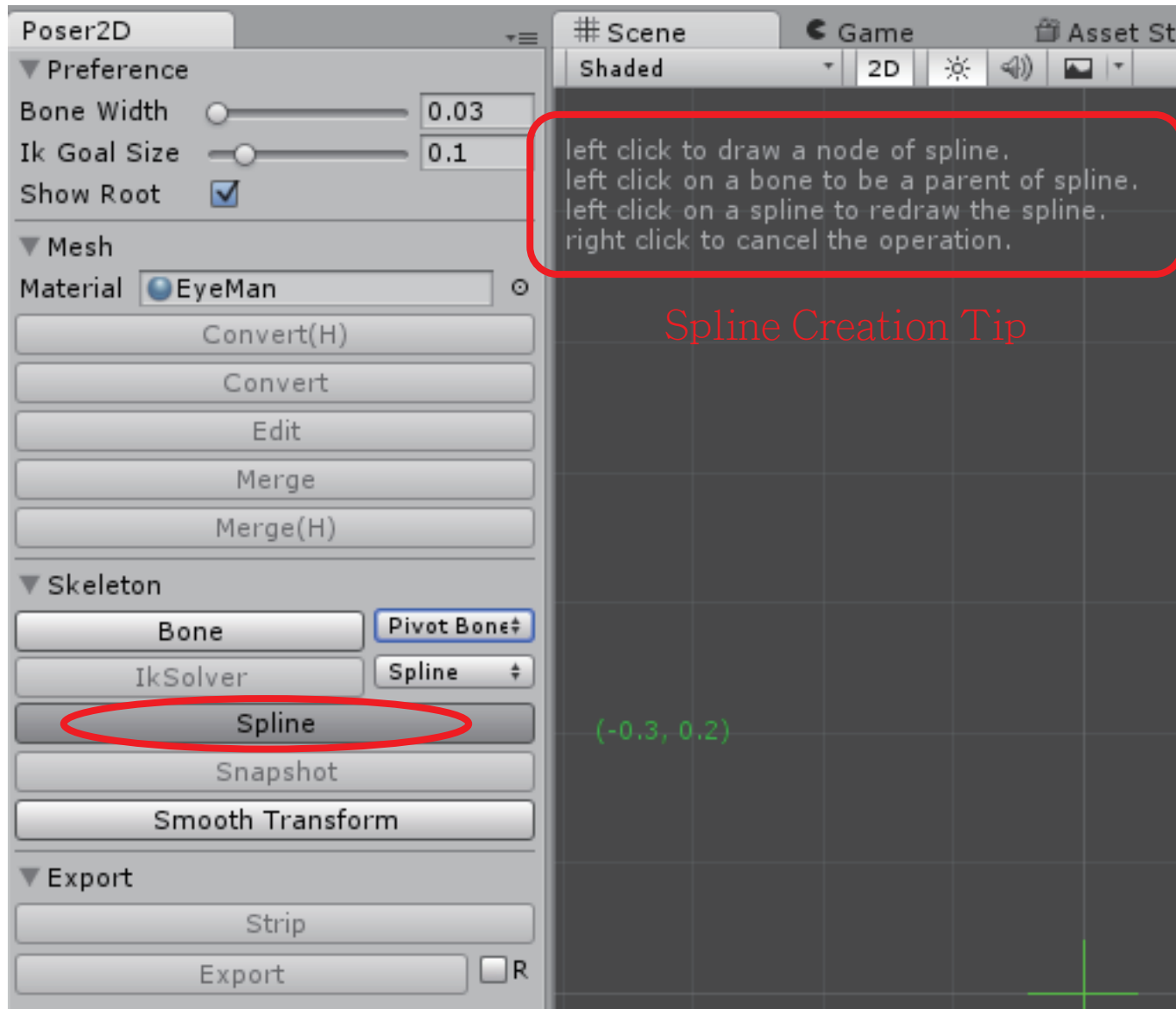
before left click on the spline node



after left click on the spline node



Skeleton - Spline - Creation

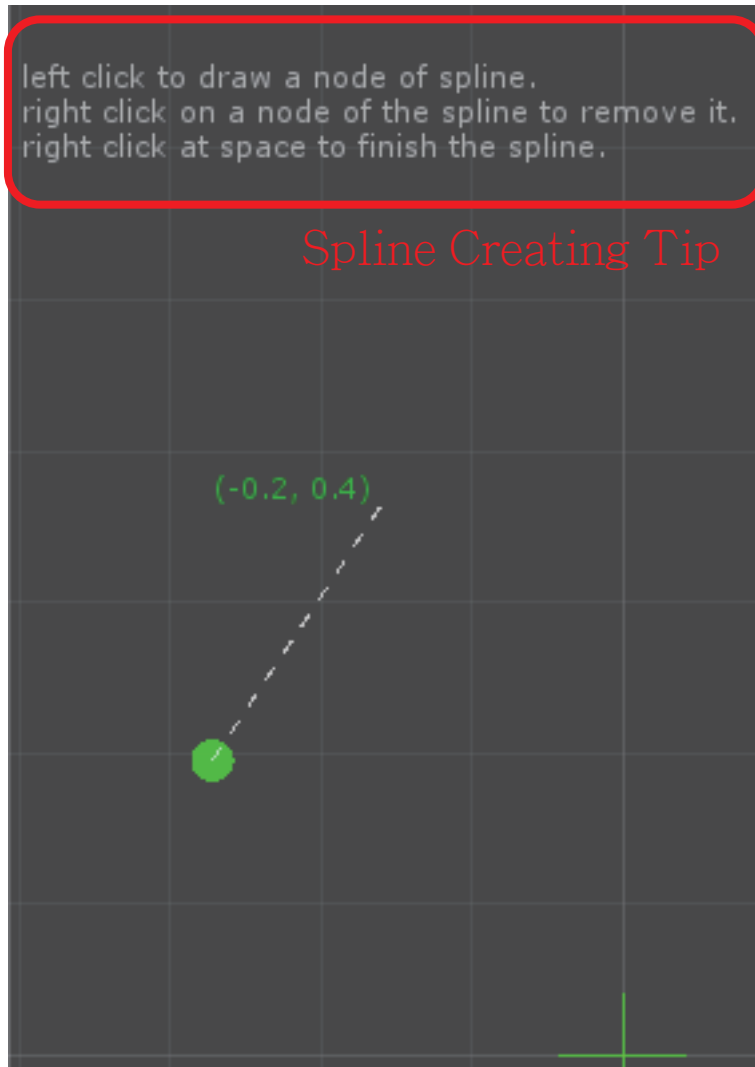


Bone or PivotBone

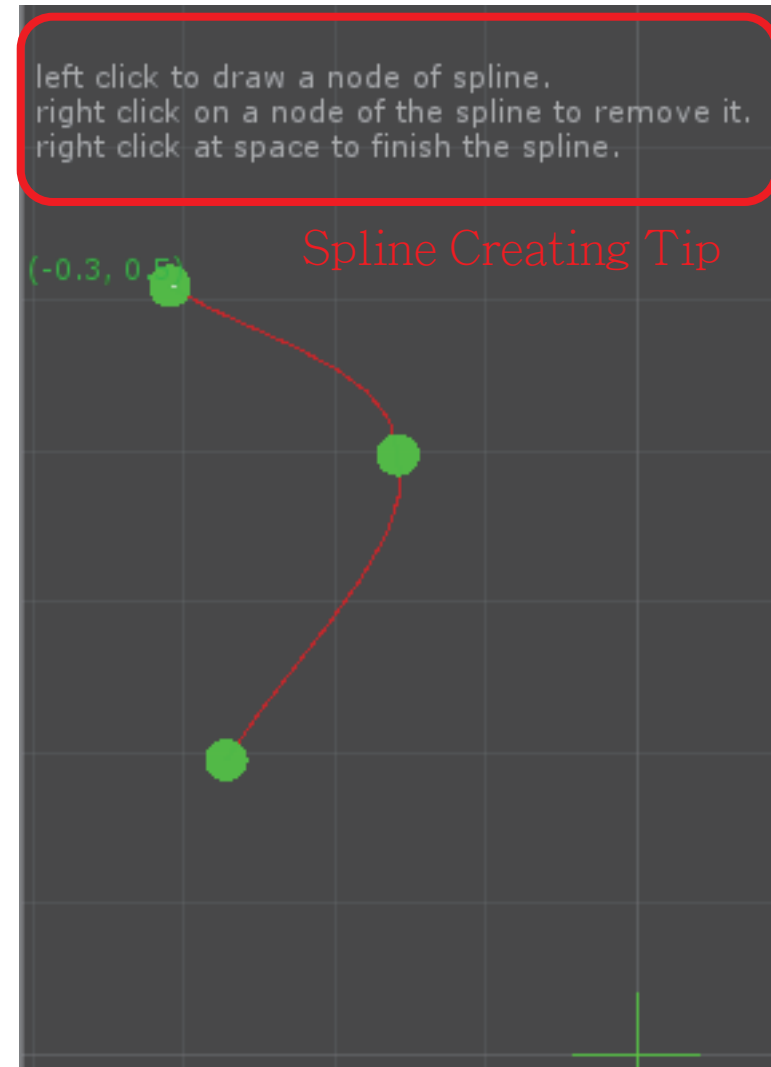
Skeleton - Spline - Creation

Step1: left click and move mouse
Step2: left click and move mouse
Step3: right click at space to finish

Step1



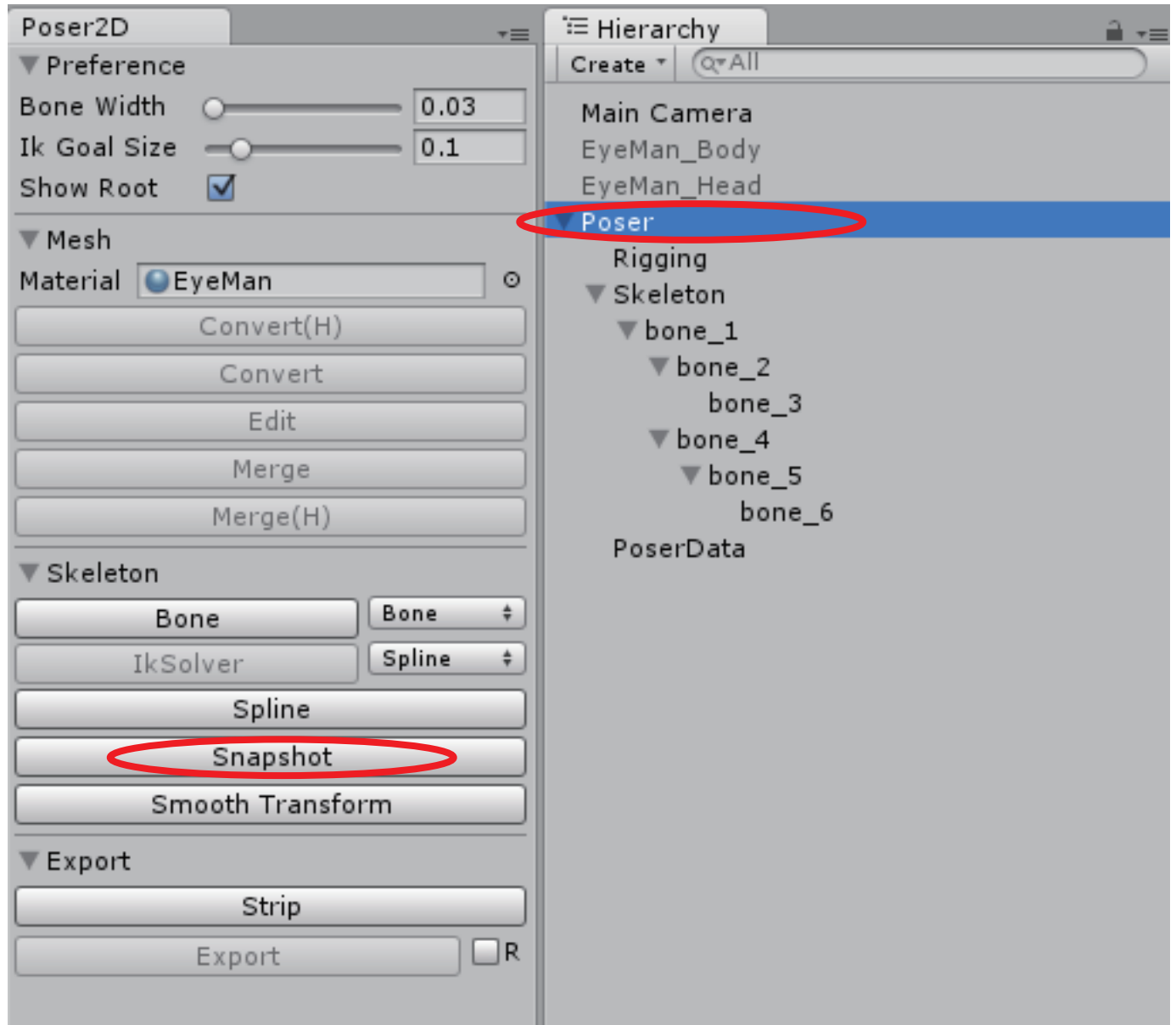
Step2



Skeleton - Snapshot

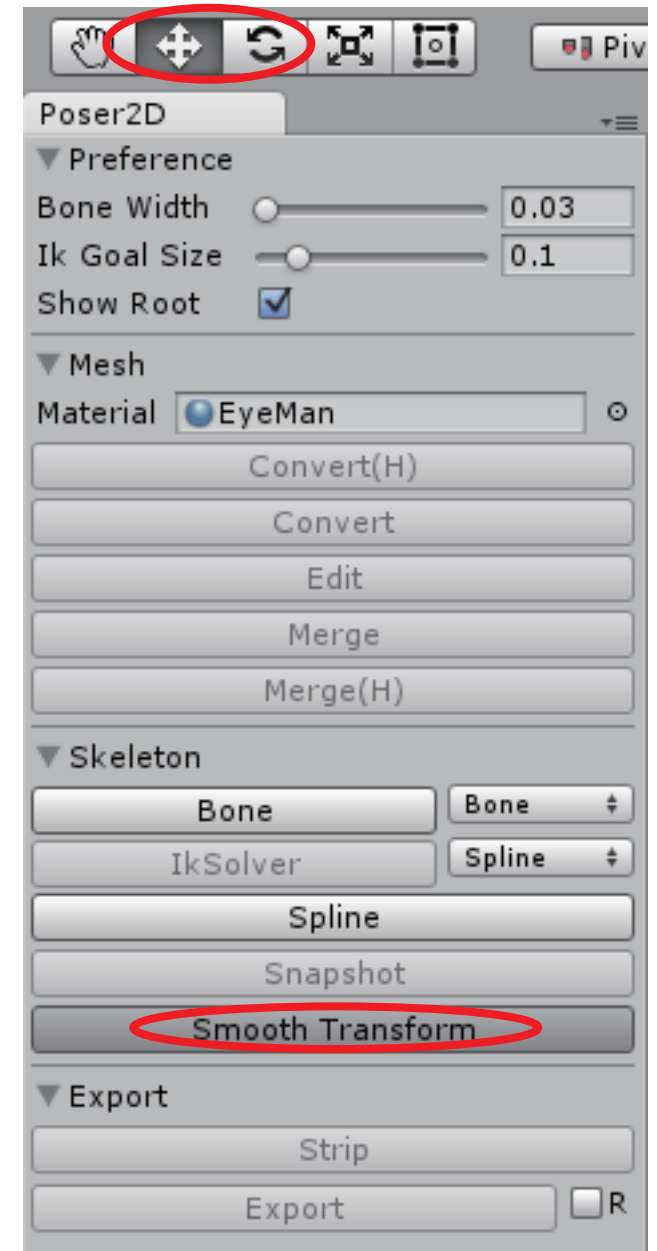
select a Poser to active snapshot button.

click it to open snapshot window

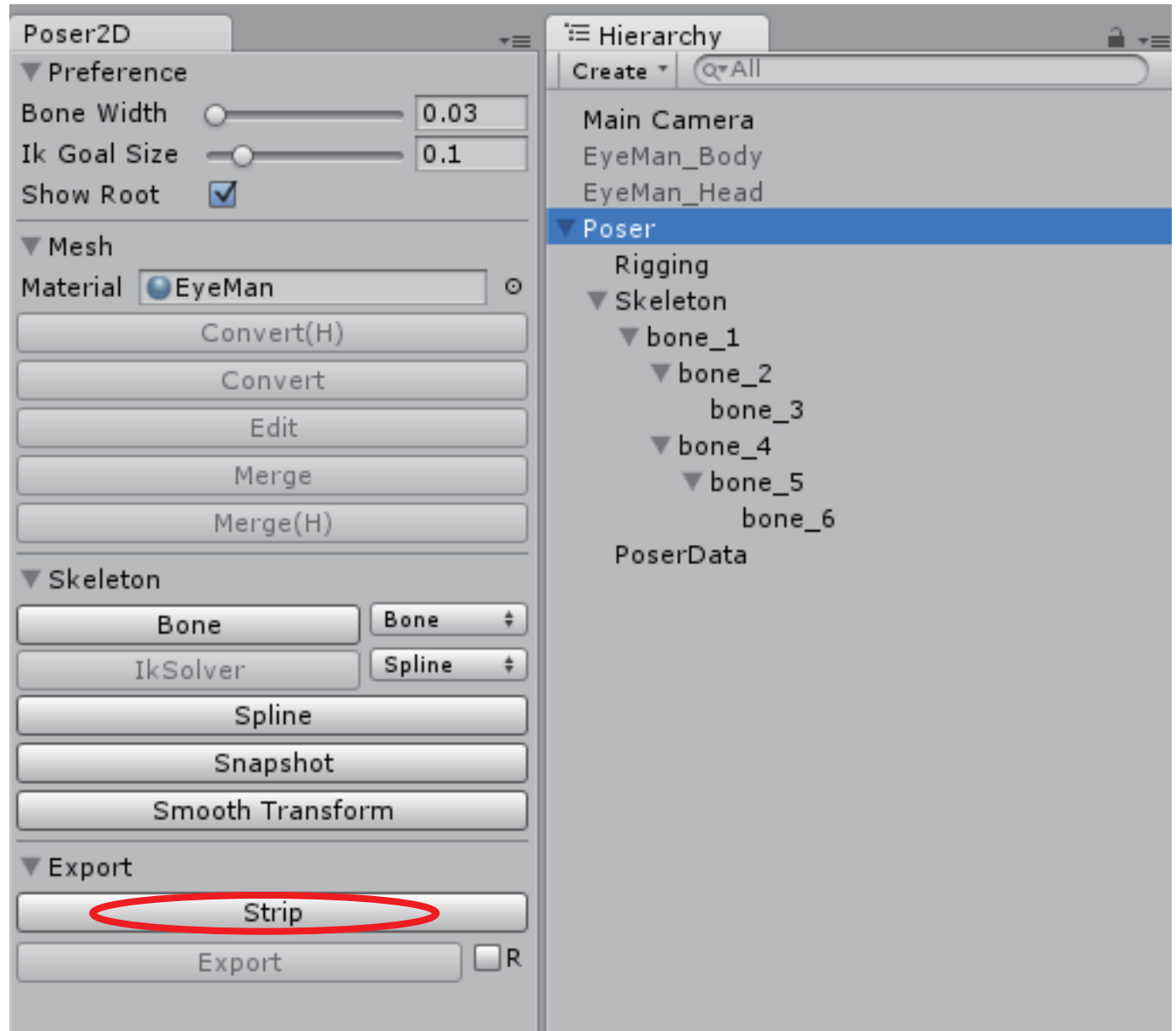


Skeleton - Smooth Transform

smooth transform mode can use move and rotation in tools.
let Bone move smooth to influence his parent Bone.
it is only effect in the last selected transform.



Export - Strip

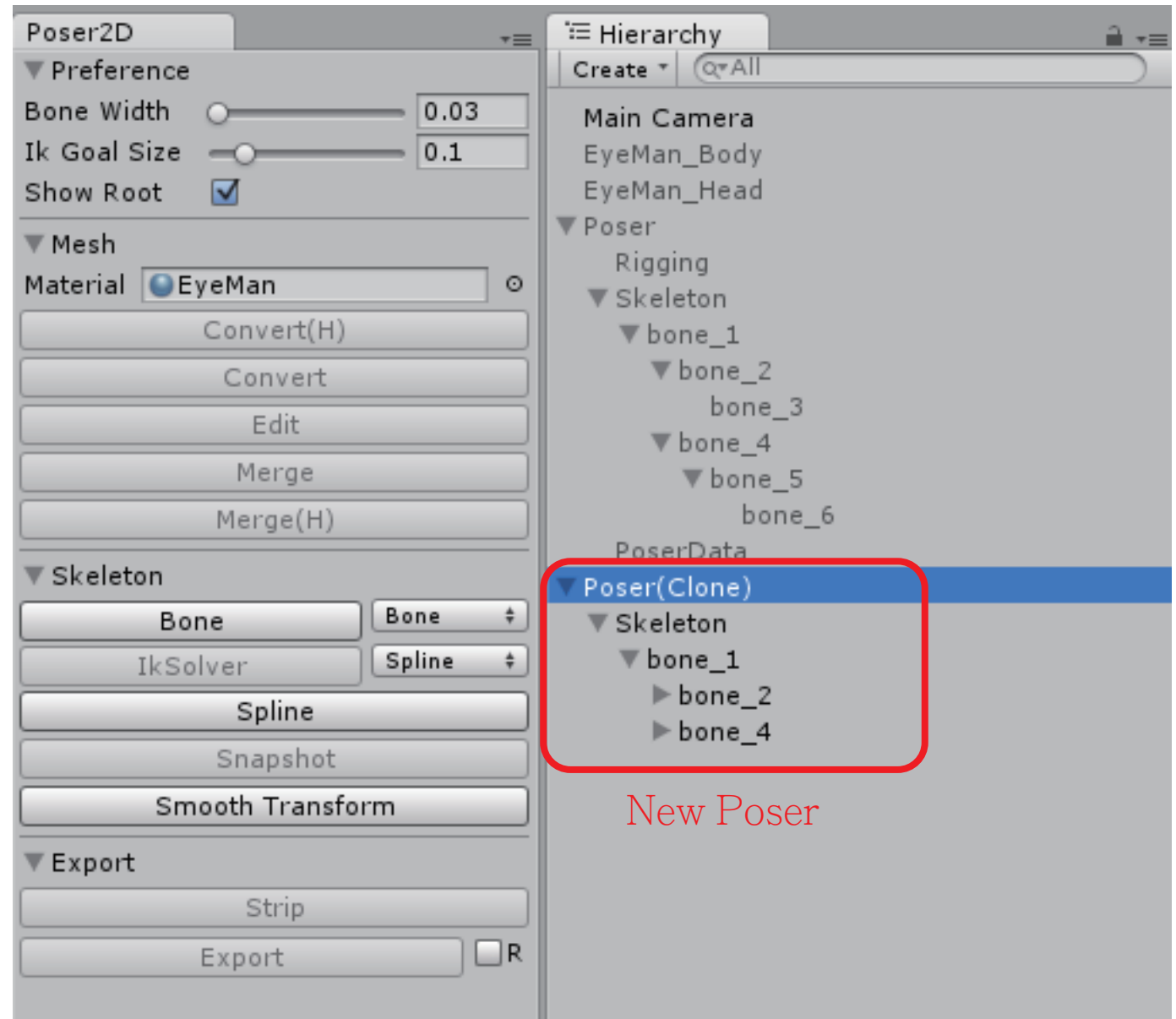


select a Poser to active Strip button.
click it to strip edit data of Poser.

Export - Strip

After click Strip button, it will create a new Poser without Edit Data.

The new Poser could be used for validating animations correctly



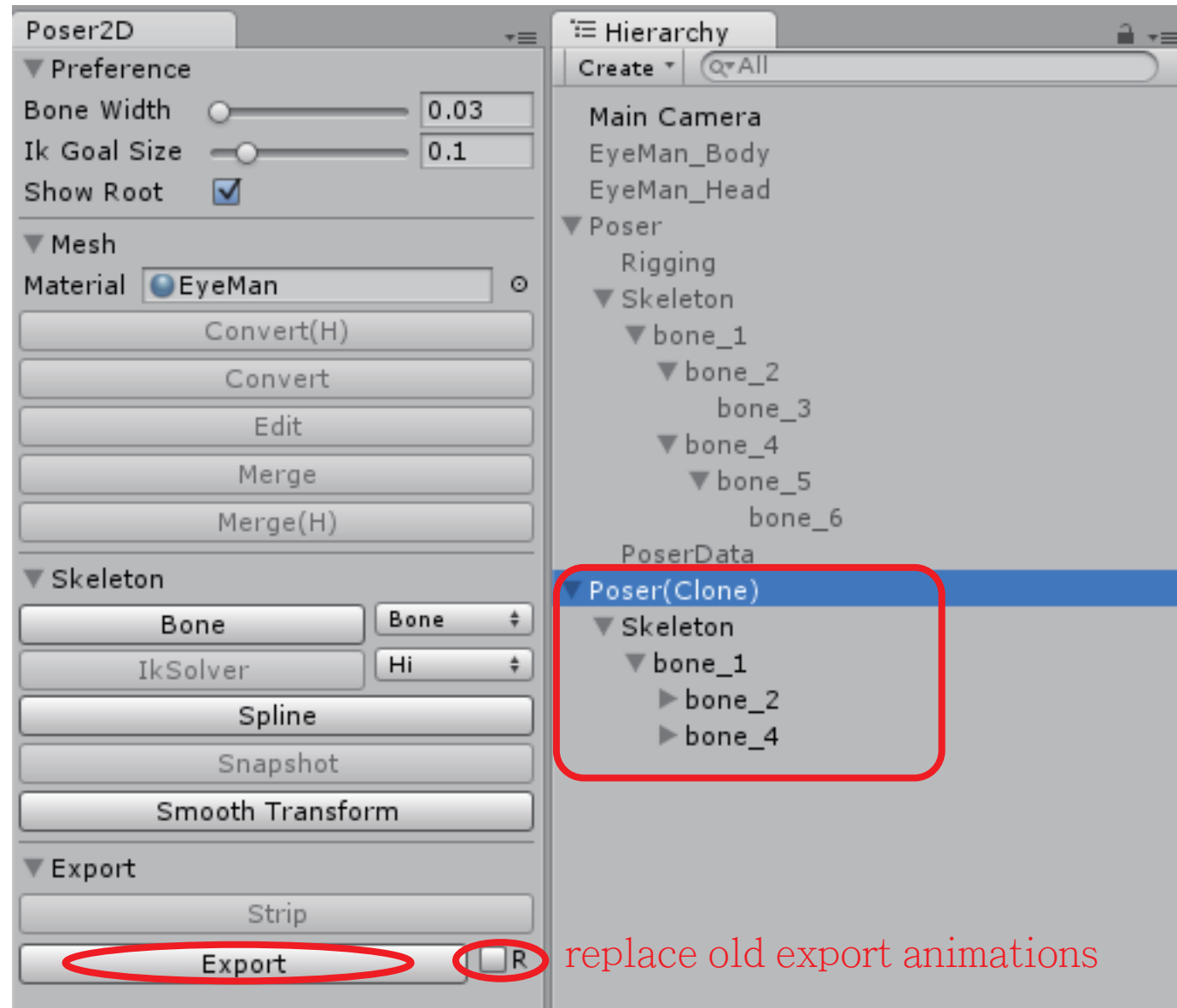
Export - Export

Active Button:

the last selection with animator and animator controller
(stripped poser with animation data)

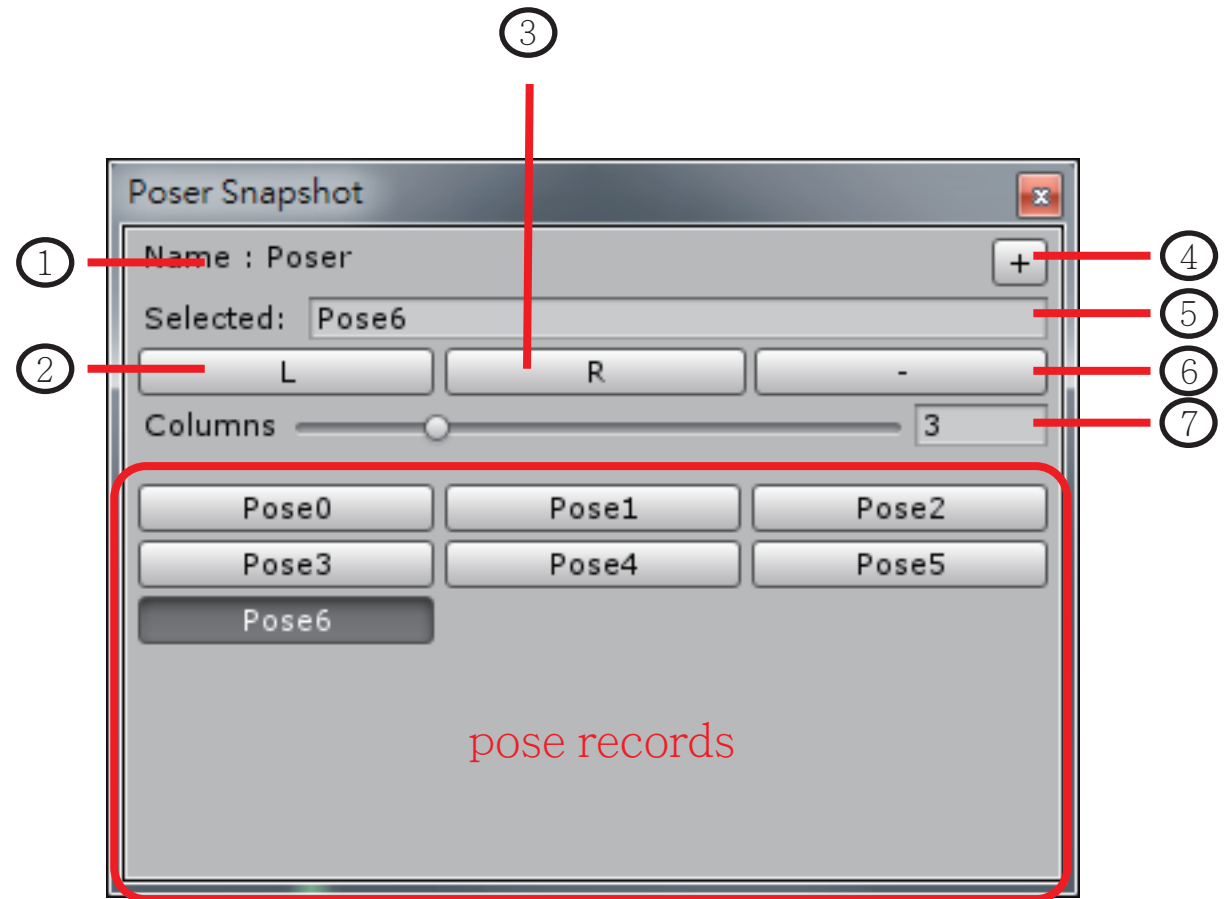
Click Button:

save the last selection to be a prefab and export all animation data(strip edit reference) in the same folder, then delete the last selection



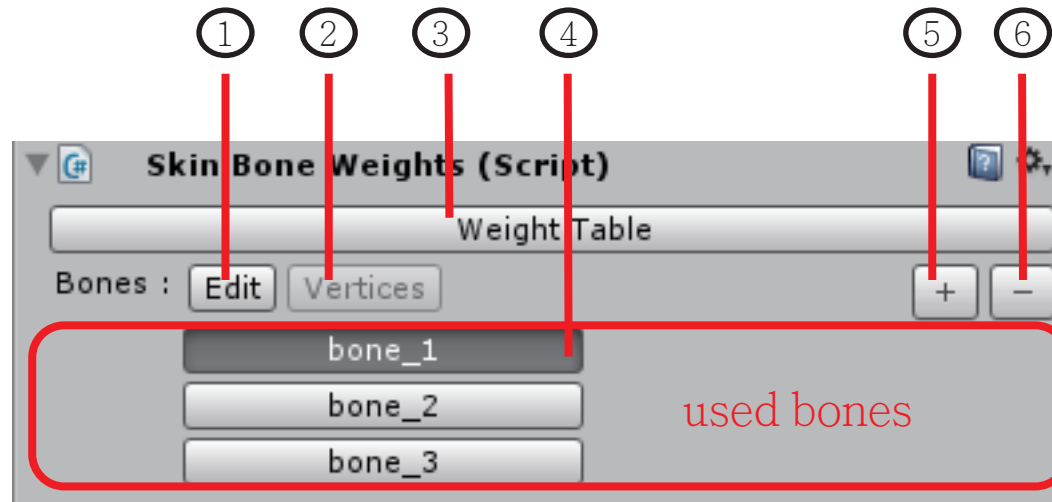
Snapshot Window

- 1 - name of the selected Poser
- 2 - load the selected pose record
- 3 - reset the selected pose record
- 4 - add new pose record
- 5 - name of the selected pose record
- 6 - remove the selected pose record
- 7 - column number of pose records



SkinBoneWeights

- 1 - edit bone data button
- 2 - show vertices button (relation with selected bone)
- 3 - open bone weight table
- 4 - selected bone for edit
- 5 - open bone picker window
- 6 - remove selected bone



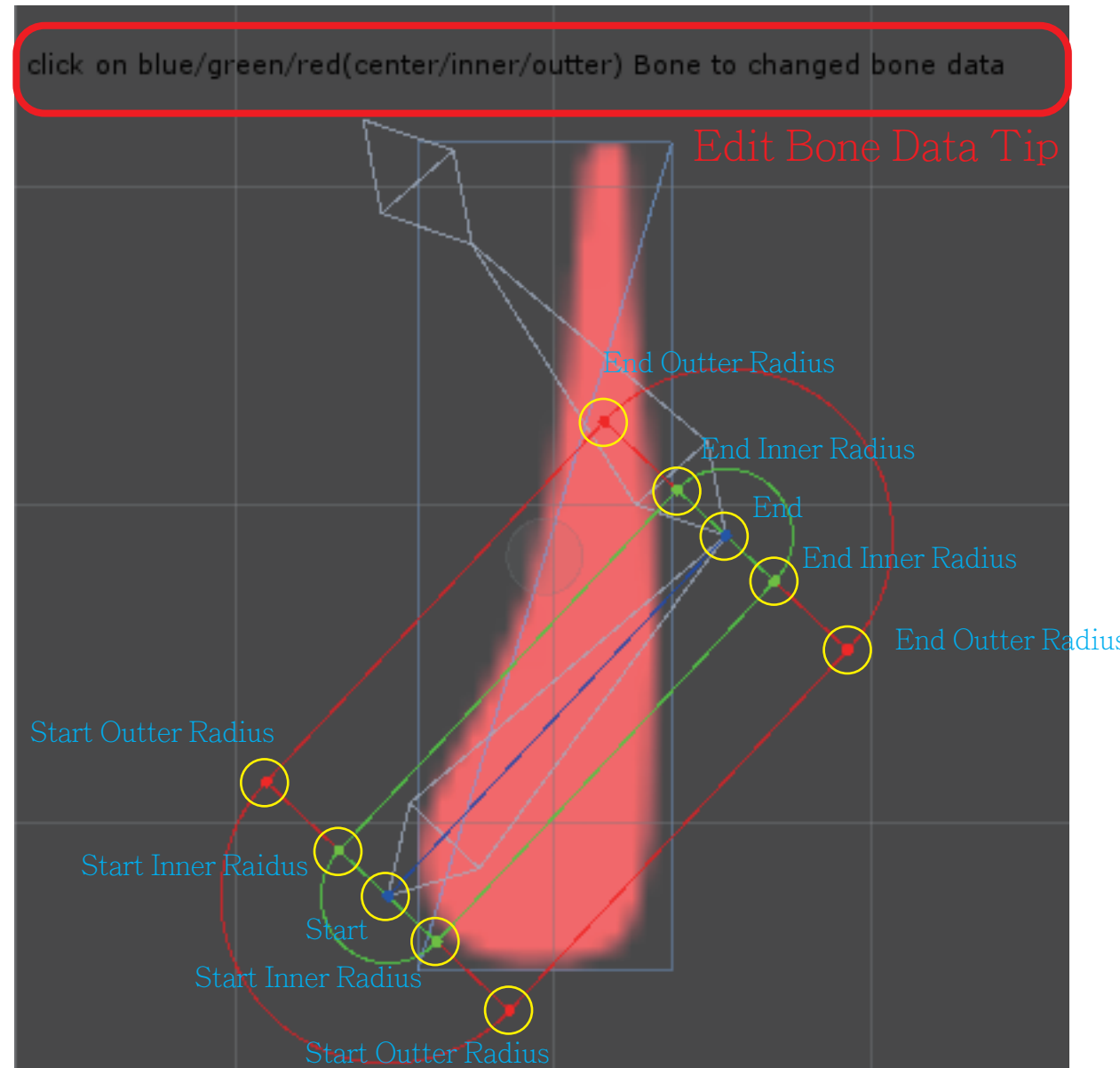
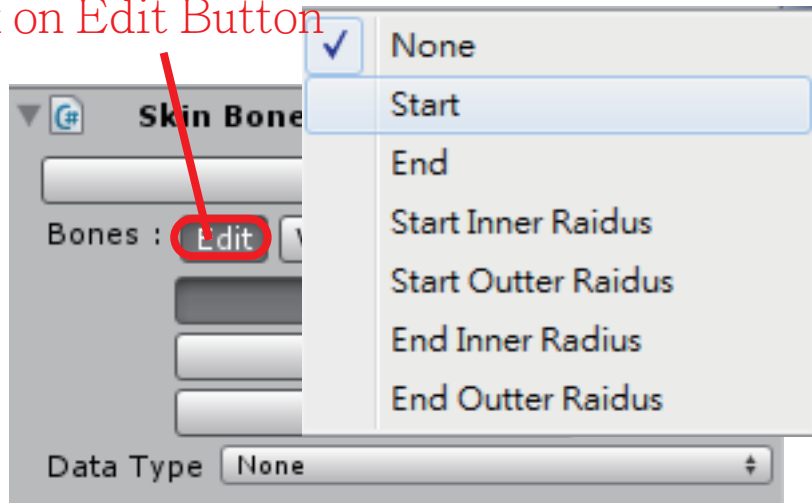
SkinBoneWeights - Edit Bone Data

click on yellow circle to select data type to change.

Bone Data Type:

- 1 - Start
- 2 - End
- 3 - Start Inner Radius
- 4 - Start Outer Radius
- 5 - End Inner Radius
- 6 - End Outer Radius

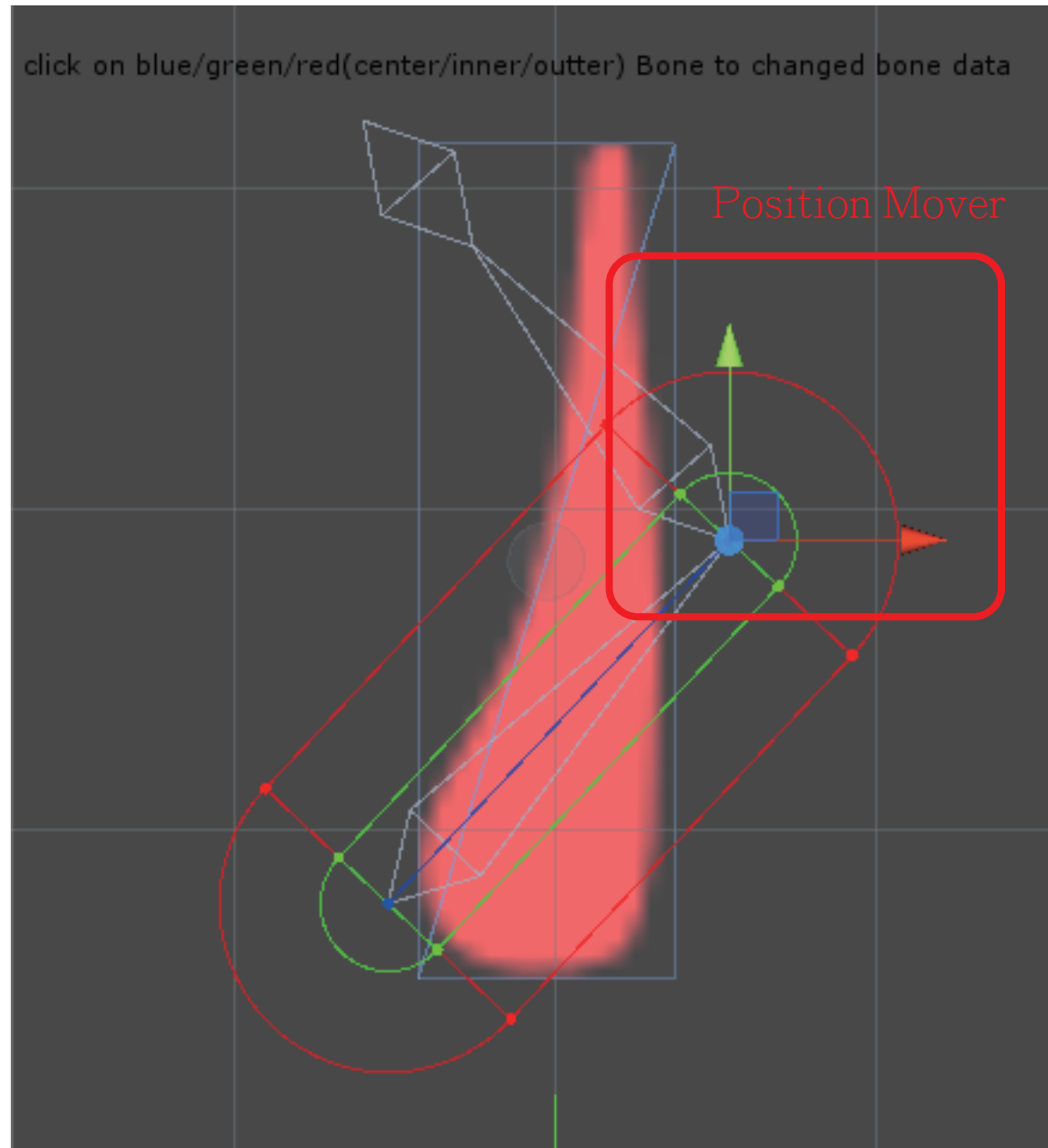
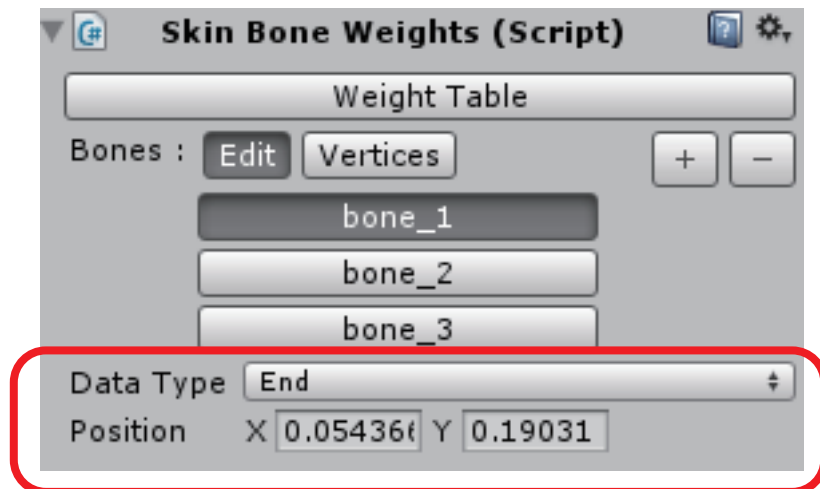
Click on Edit Button



SkinBoneWeights - Edit BoneData - Start / End

Start
End

drag **Position mover** to move position
or modify position value in inspector

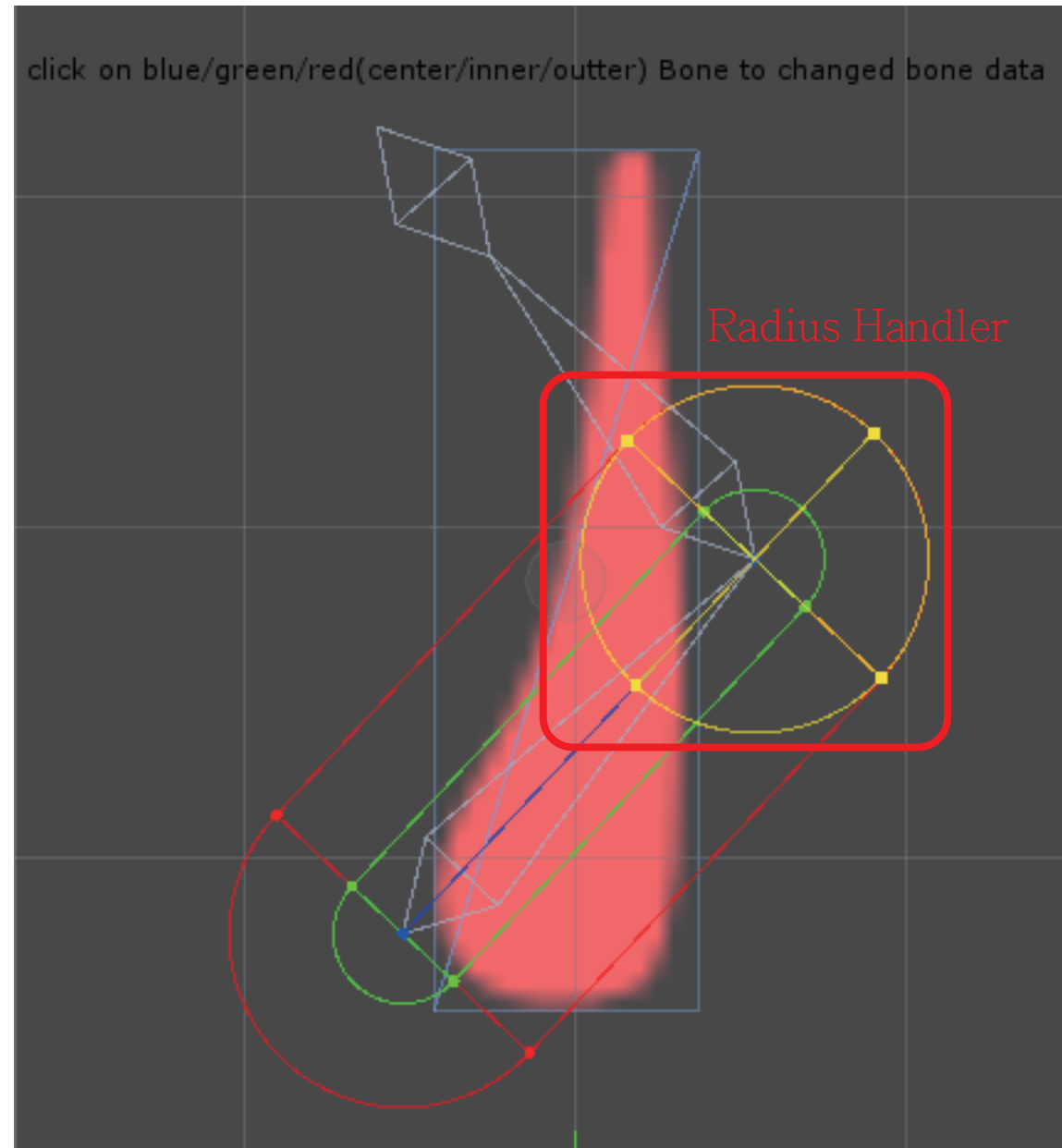
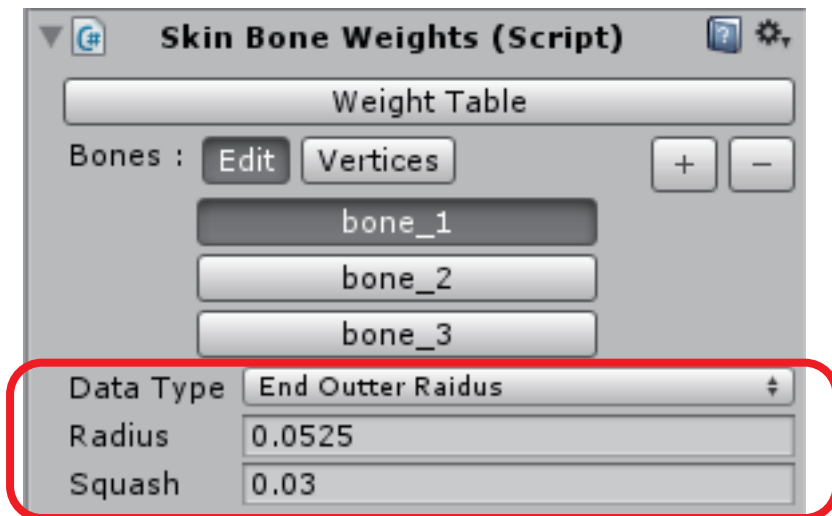


SkinBoneWeights - Edit BoneData - Radius

Start Inner Radius
Start Outer Radius
End Inner Radius
End Outer Radius

drag **Radius Handler** to change radius
or modify radius value in inspector

squash to push radius value when inner
and outer too closed



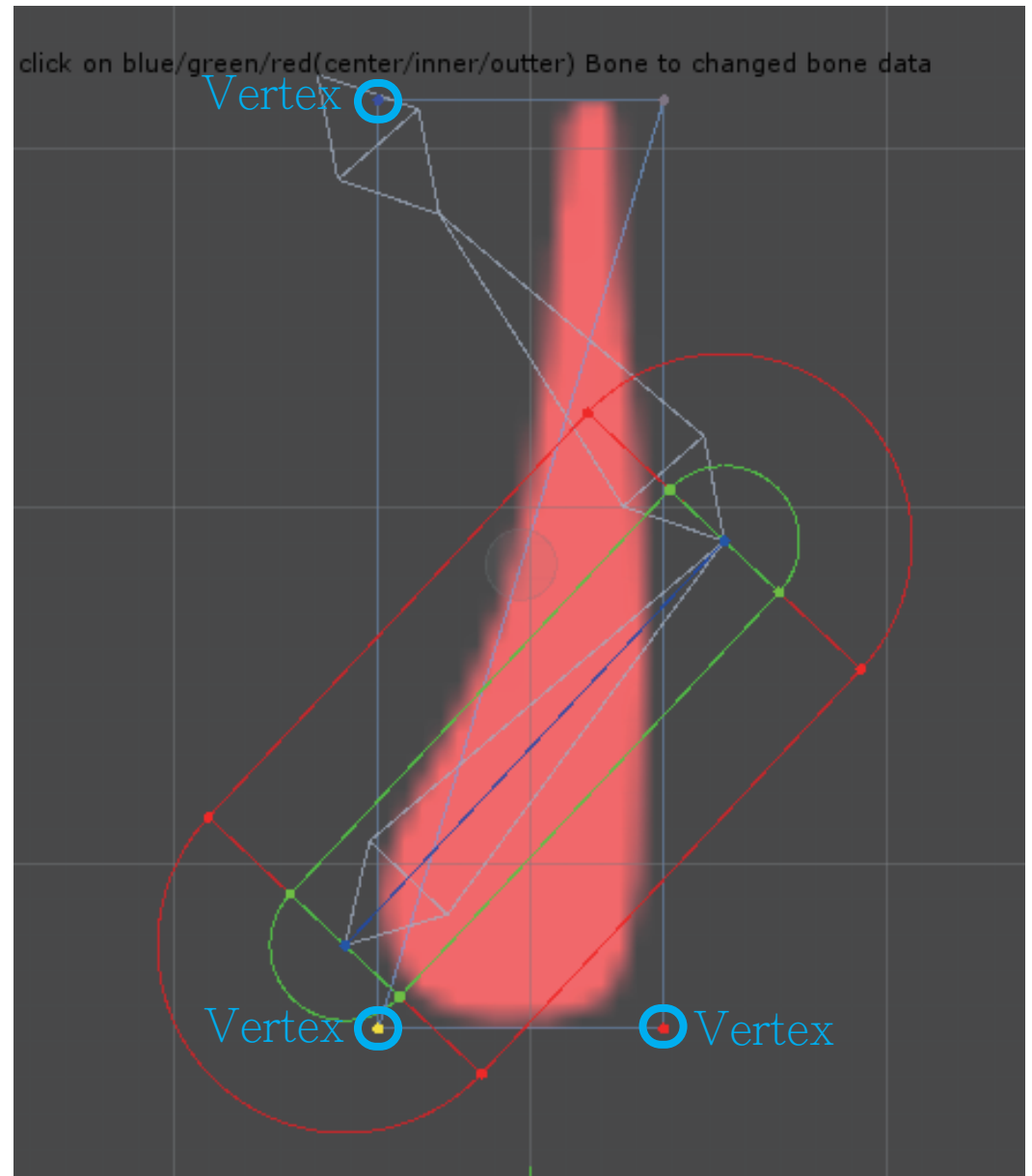
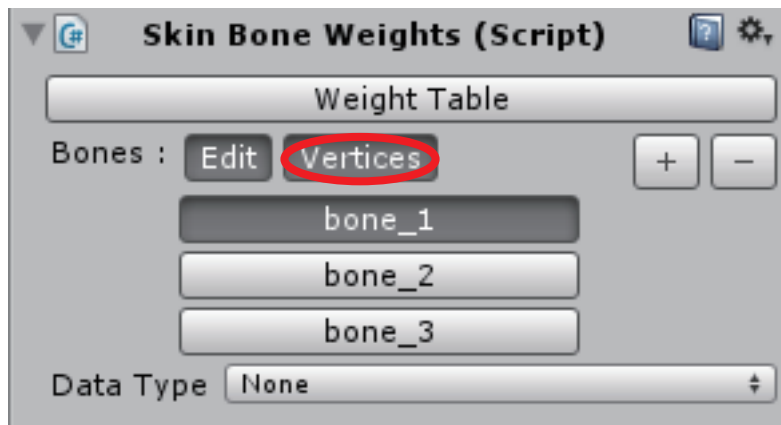
SkinBoneWeights - EditBoneData - Vertices

click on **Vertices Button** to show vertices of relation of the selected bone

Weight Color of Vertex

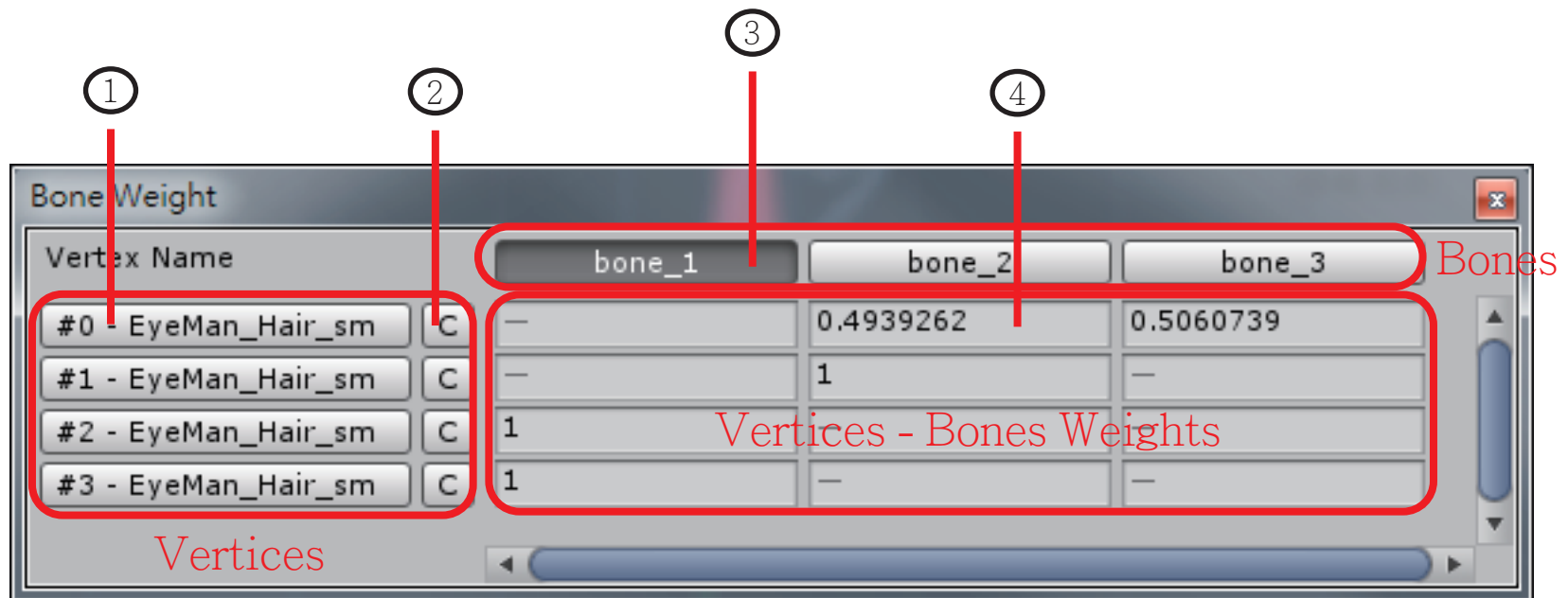


1 0.5 0



SkinBoneWeights - Bone Weight Table

- 1 - vertex toggle, pressed will be displayed when editing bone data in SkinBoneWeights
- 2 - weight custom toggle, pressed will not auto updated bone weight of the vertex when changed bone data (add bone or remove bone will auto untoggle).
- 3 - bone mutex toggle, pressed will changed the selected bone in SkinBoneWeights.
- 4 - weight of the column bone and the row vertex



SkinBoneWeights - Bone Picker

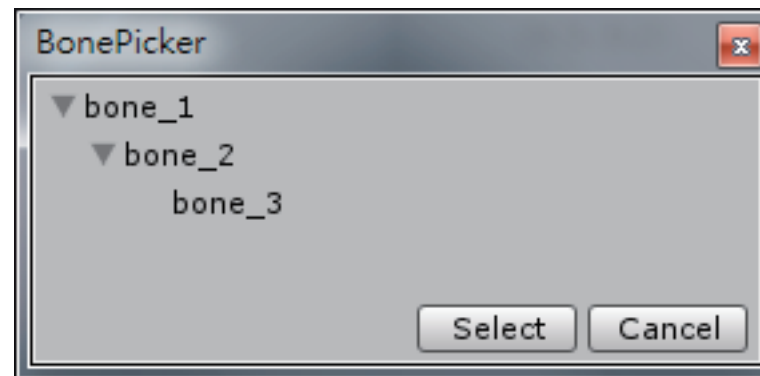
left click to select a bone.

ctrl + left click to add a selected bone.

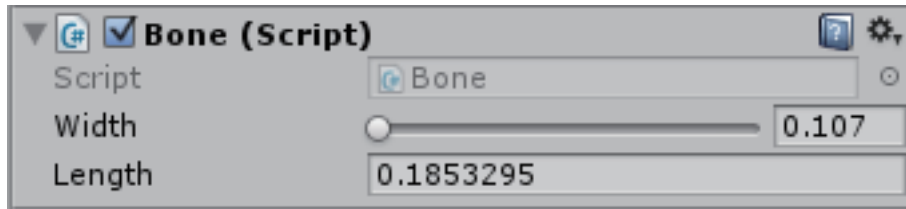
shift + left click to select bones from last selected bone to click bone.

click Select button to add selected bones to SkinBoneWeights.

click Cancel to cancel this operation.

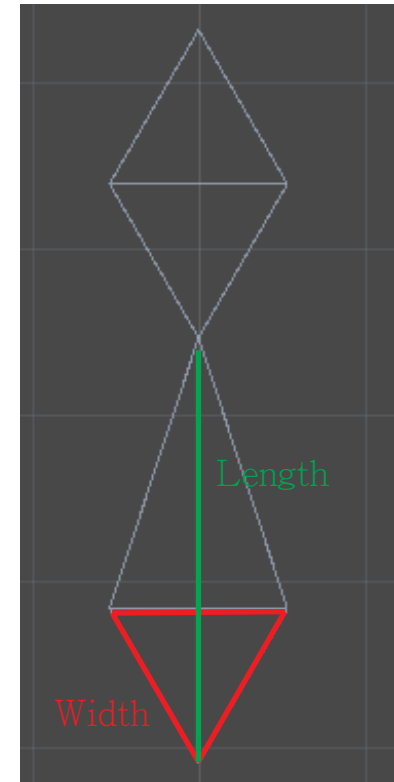


Bone

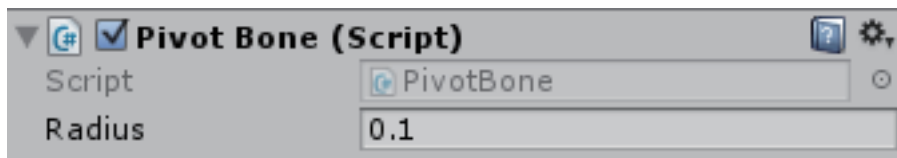


Width : used when bind bones to mesh to initial bone data.

Length : used when bind bones to mesh to initial bone data
or calculate position for creating a child bone



Pivot Bone



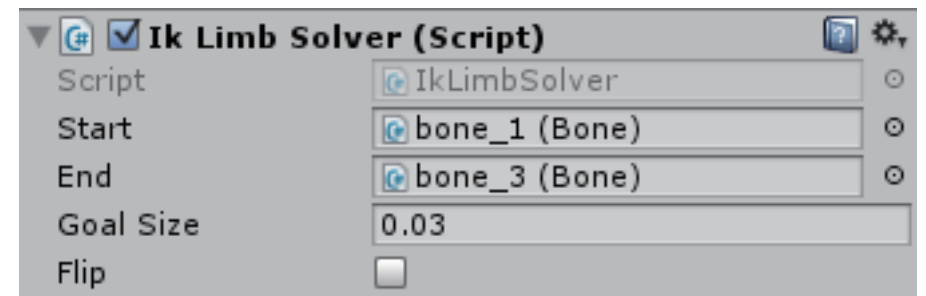
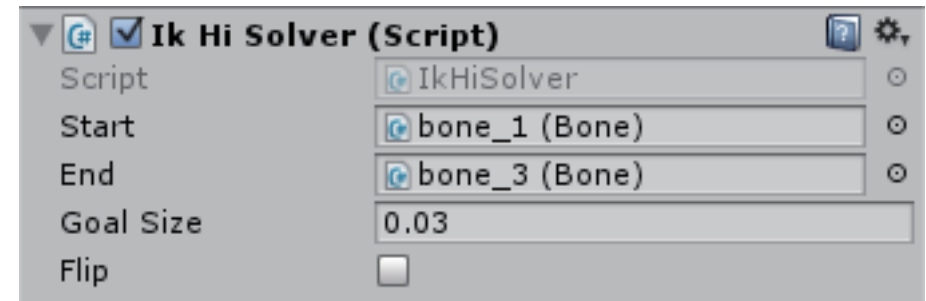
Radius : used when bind bones to mesh to initial bone data.

bone data is in SkinBoneWeights for calculation of bone weight of vertex

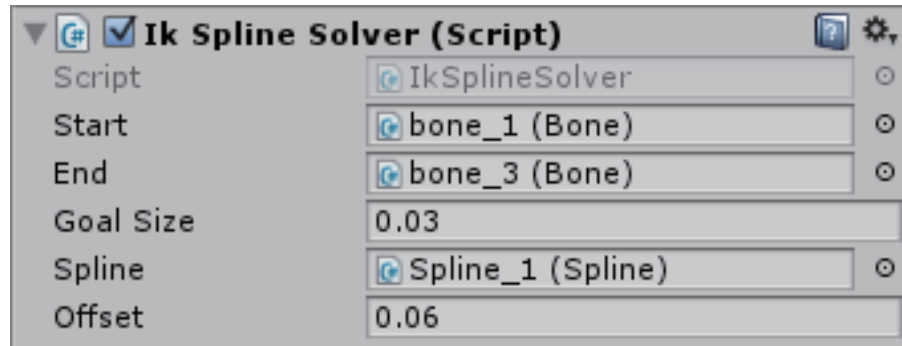
IkHiSolver, IkLimbSolver



Start : first ancestor Bone node
End : last posterity Bone node
Goal Size : size of visual IkSolver for pick
Flip : flip caculation of IkSolver

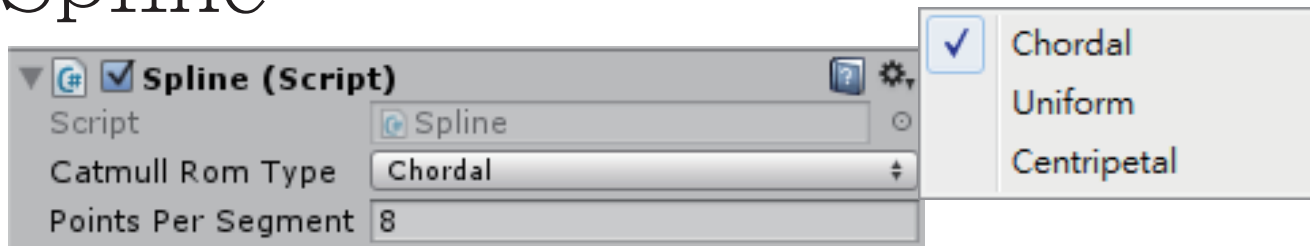


IkSplineSolver



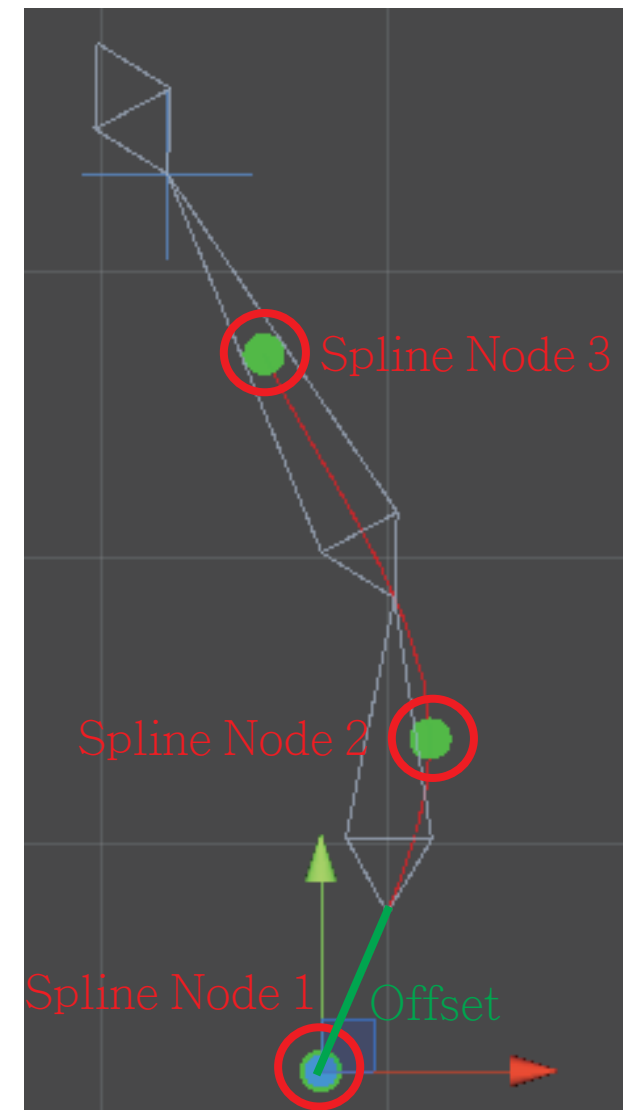
Start, End, Goal Size are same as IkHiSolver
Spline : used spline for IkSplineSolver
Offset : distance to Spline Node1

Spline



Catmull Rom Type : caculation type for curve of spline(show difference at next page)

Points Per Segmenet : points amount between 2 nodes of spline



Catmull Rom Type

http://www.cemyuksel.com/research/catmullrom_param/catmullrom.pdf
url is more detail about Catmull Rom Type

