
Bonera

Release 1.1

BlenderBoi

Sep 24, 2022

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Bonera is a Blender Addon that adds semi auto tool to help you in your rigging process. Instead of a full blown rigging system, Bonera's goal is to add the "wrench and screwdriver" of your rigging process, aiming to speed up the tedious part of the manual rigging process

OVERVIEW

Bonera is an addon that provide a Set of Tool to Help to speed up the tedious part that is in the Manual Rigging Process. The addon turned some of the more repetitive operator that sometimes solves using Simple Python script packed into a Toolkit Addon.

Instead of a full rigging system, Bonera seeks to be the “Wrench and Screwdrivers” of your rigging process. Can be Useful if you have a wierdly specific things need to be done that is related in rigging.

More Tool might be added to this addon if there are request to it.

1.1 Sections

Bonera is Separated Into 4 different Sections and Panels.

- *Bonera Toolkit*
- *Pseudo Bone Layer*
- *Pair List Renamer*
- *Bone UI Slider Generator*

Preferences

You can Disable or Enable any of them in Preferences

1.2 HIGHLIGHTS

1.3 Speed Up Hardsurface Rigging Workflow

When dealing with Hardsurface Rigging, often time one needs to deal with multiple objects. Creating Bones and Adding the Object's Vertex to Vertex Group can be a really Time Consuming Process

By Using the Bone Chain From Object Hierarchy Operator in Object Mode, You can set up bones quickly, especially for Hardsurface Model

1.4 Quickly Rig Curve Related Object

Curve Object are often used for things such as Hair, Grass, Ropes, Wires or any tube like items, While it is a very useful thing, rigging a rope involving Hooking Curve Points One By One, this can be very time consuming, and so this addon can help speed up this process

You Can Create the Bone in a Chain Like Manner

1.5 Apply Bone Shape

Creating Bone Shape can be a Tedious Process, But most of the time, People Uses some a set of commonly used shape, You can use Premade Bone Shape and Apply to Bones Speeding things Up. You can Even add your Own Bone Shape by Adding your Own Widget in AddonDirectory/Bonera/Widget/Widget.blend, the added bone shape will be at the same place as the bone, so you can alter the shape however you like after

BONERA TOOLKIT

Bonera Toolkit is a Set of Tool to Help to speed up the tedious part that is in the Manual Rigging Process. It is a simple addition to your manual rigging workflow.

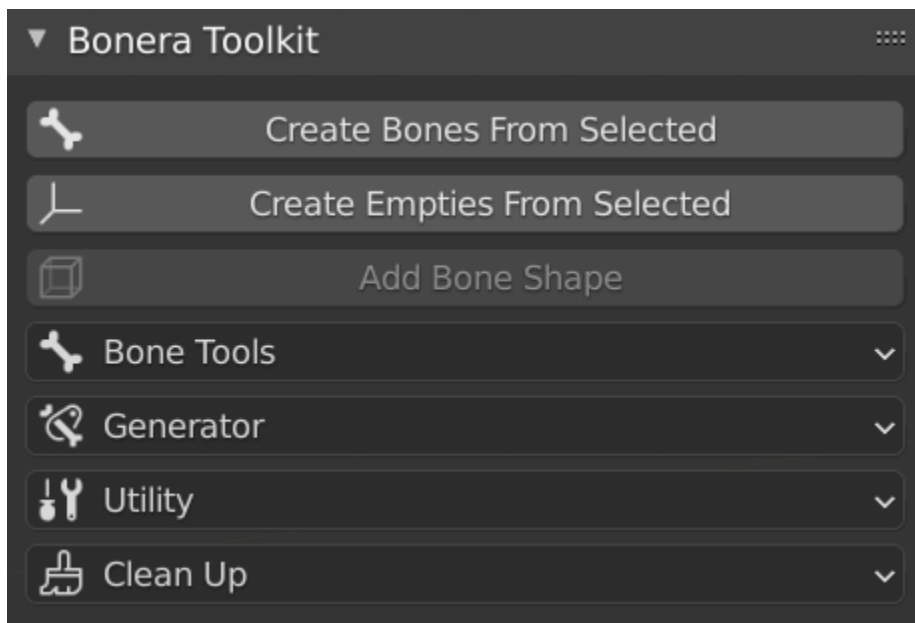
You can Access it through Side Panel or Menu using Shortcut

2.1 Panel

You can Access Bonera Toolkit in Side Panel

Bonera Toolkit Menu

Sidebar → Bonera → Bonera Toolkit

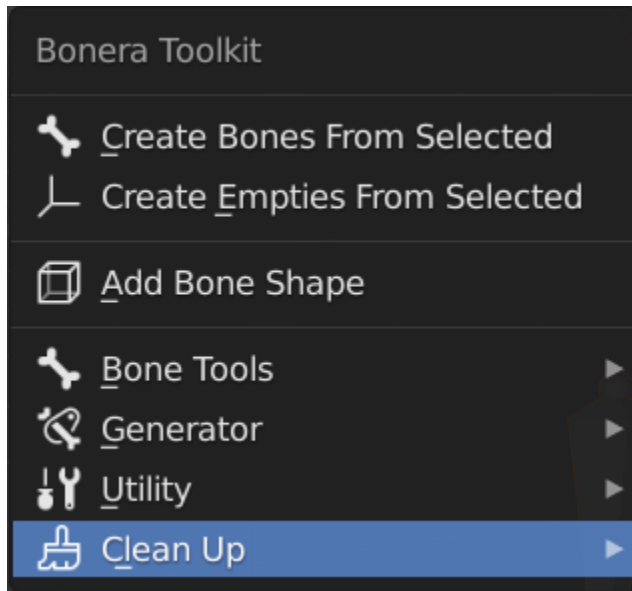


2.2 Menu

You can Access Bonera Toolkit Menu Through shortcut

Bonera Toolkit Menu

Shortcut: Ctrl - Shift - A



2.3 Operators

Bonera Toolkit is Split up into Different Category of operator.

2.3.1 Create Operators

Create Bone from Selected

Object	Edit Mesh	Edit Curve	Edit Armature	Pose
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DEMO

Object Mode (Individual)

Object Mode (Median)

Edit Mesh Mode (Individual)

Edit Mesh Mode (Median)

Edit Curve Mode (Individual)

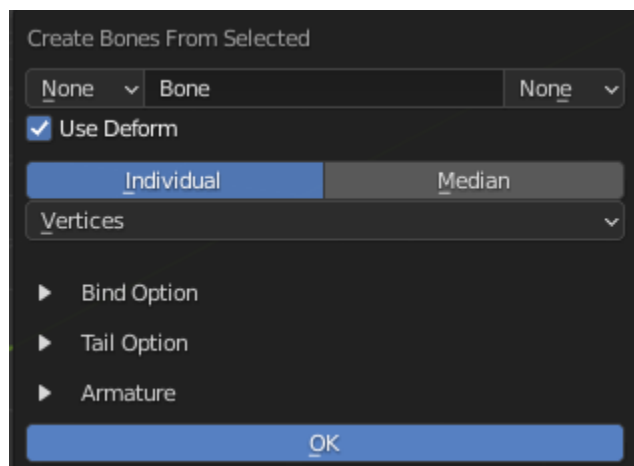
Edit Curve Mode (Median)

Edit Armature / Pose Mode (Individual)

Edit Armature / Pose Mode (Median)

This Operator Create bone from Selected Objects / Elements base on the context.

This Operator can Create One Bone at the Selected Midpoint or It can Create A Bone for each selected items.



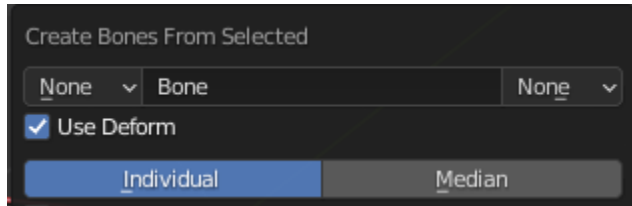
Basic Parameter

Prefix: Add Prefix to Base name Base on Preferences

Base Name: Base Name of the Bone

Suffix: Add Suffix to Base name Base on Preferences

Deform: Turn On/Off Deform for created bone



Mode:

Median

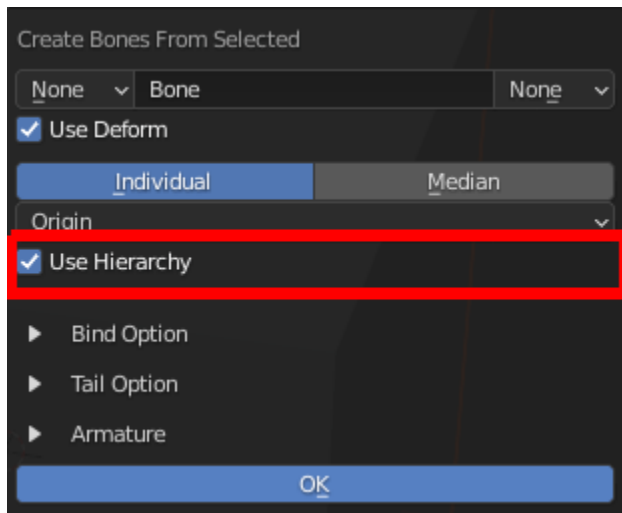
Create One Bone at the Selected Object / Elements

Individual

Create Bones for each Selected Object / Elements

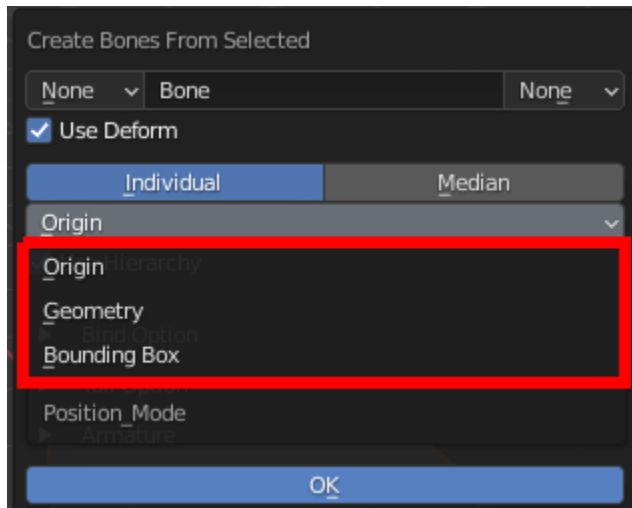
Contextual Option

Use Hierarchy (Individual with Object Mode Only)



Create the Bones with the Hierarchy mimicking the Reference Object's Hierarchy

Position Mode (Object Mode Only)



Ways to Calculate Midpoint of the Objects

Origin

Use Object's Origin to create bone or calculate Median

Geometry

Use Geometry's Midpoint/Median for Mesh, Curve or Armature Object to create bone or calculate Median, Other type of Object will use it's Origin

Bounding Box

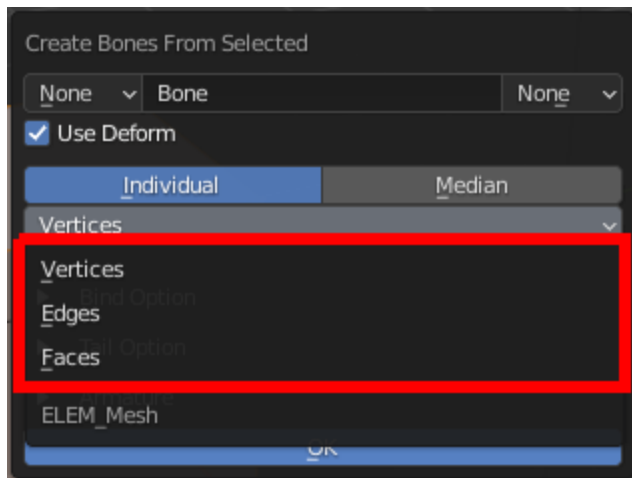
Use Geometry's Bounding Box Center for Mesh, Curve or Armature Object to create bone or calculate Median, Other type of Object will use it's Origin

Elements

Elements use to create the Bones

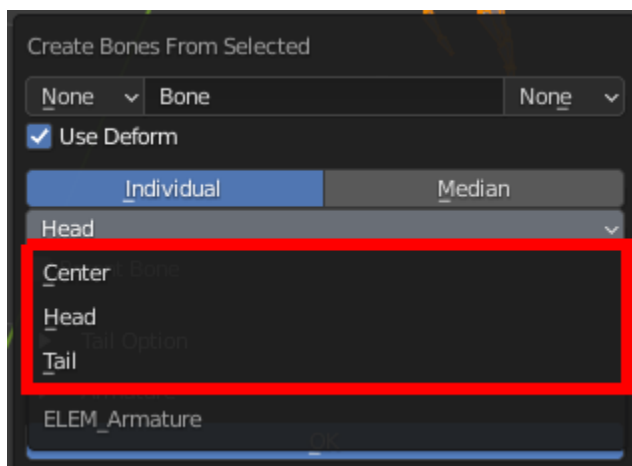
Edit Mesh (Individual Mode Only)

- Vertices
- Edges
- Faces

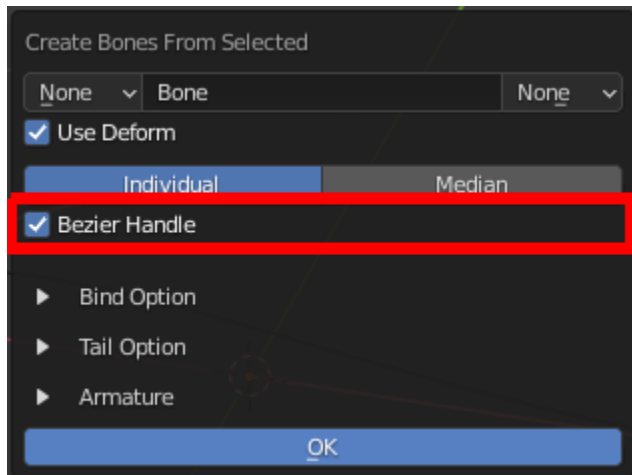


Edit Armature / Pose

- **Center:** Use Bone Center to Create Bone or to Calculate Median or Bounding Box
- **Head:** Use Bone Head to Create Bone or to Calculate Median or Bounding Box
- **Tail:** Use Bone Tail to Create Bone or to Calculate Median or Bounding Box

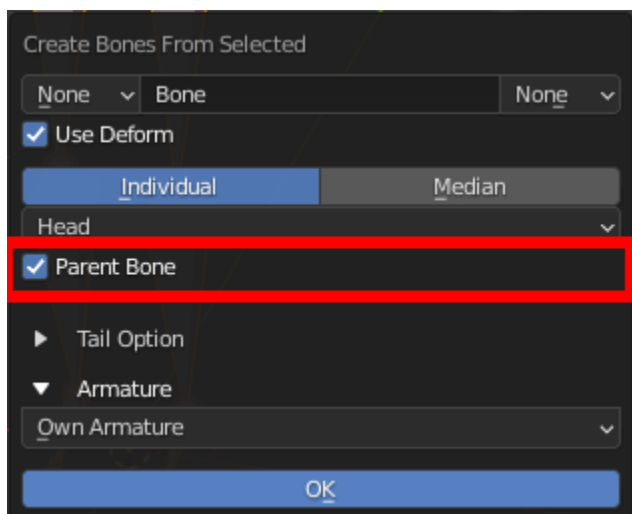


Bezier Handle (Edit Curve Only)



Create Bones For Bezier Handle

Parent Bone (Edit Armature, Individual Mode and Own Armature Settings)



Parent the created bone to it's reference bone, this only works in Edit Armature Mode, Individual Mode, and Own Armature Settings.

Bind Option

Bind Mode

Method to bind the selected objects/elements to created bones



Weight

Create Vertex Group and using the created bones for mesh Object

Sub Options

- **Add Armature Modifier:** Add Armature Modifier to relevant objects
- **Parent To Armature:** Parent relevant object to Armature
- **Parent None Mesh:** Parent Non Mesh Object to created Bone

Parent Bone

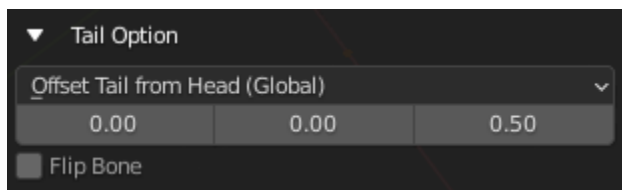
Parent Object / Objects to created Bone

Hook

Hook Curve Points to selected



Tail Option



Tail Mode

Set Up Bone's Tail Position

Offset Tail From Head (Global)

Offset the tail from the head by the offset Vector in the Global Space

Offset Tail From Head (Local)

Offset the tail from the head by the offset Vector in the Local Space

3D Cursor

Use the position of 3D Cursor as the position of the bone's tail

Normal (Edit Mesh Only)

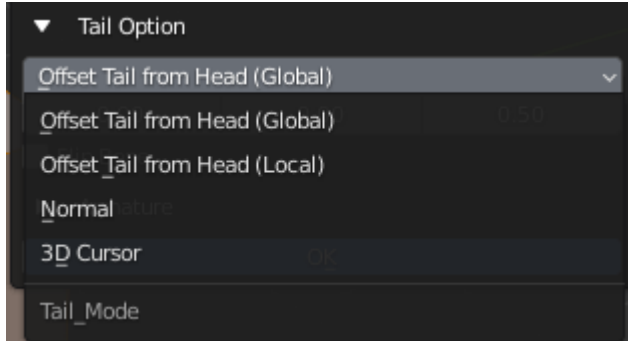
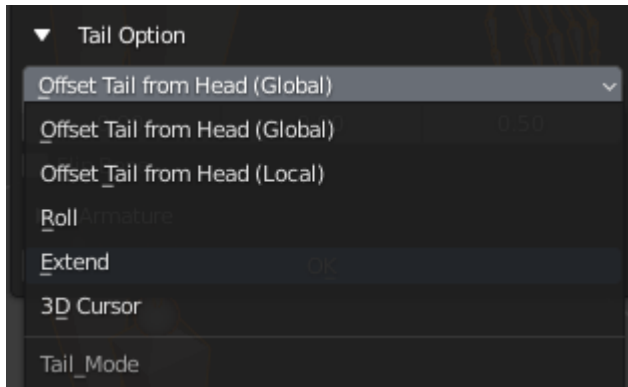
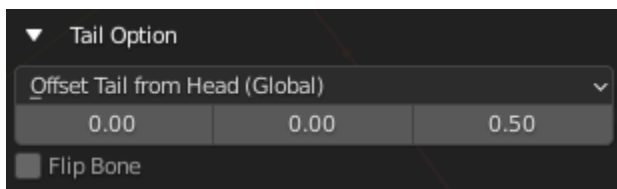
Offset the tail from the head by the offset Vector in using the Normal of the Edge Center, Face or Vertex as Angle

Roll (Edit Armature and Pose)

Offset the tail from the head by the offset Vector in using the Roll of the Bone as Angle

Extend (Edit Armature and Pose)

Align the Created bone to the Reference Bone's, matching it's orientation and roll

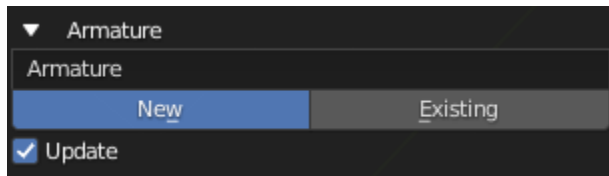
Edit Mesh Mode:**Edit Armature / Pose Mode:****Tail Offset Amount**

The Vector Used to offset the tail

Flip Bone

Flip the Position of the Head and Tail of the Created Bones

Armature Option



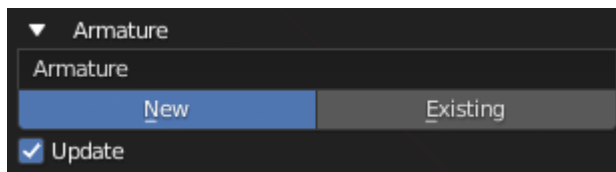
Armature Name / Armature Picker

Name for New Armature or Pick a Existing Armature to Add Bone to

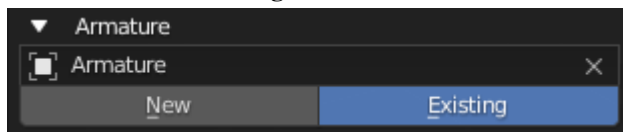
Armature Choice

Choose to create New Armature or Use Existing Armature

New: Create bone to a New Armature that uses the Name Above



Exist: Create bone to existing Armature above



Update

Set the Operator to Existing and Use the Created Armature After Creating the Armature

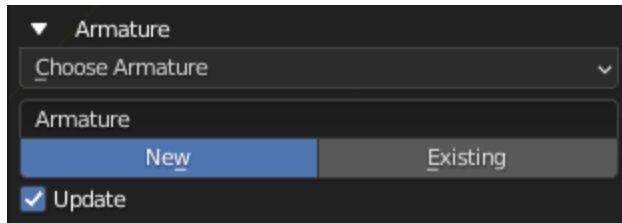
Edit Armature Or Pose

If you are in Edit Armaute or Pose Mode, you have more options

Own Armature (Individual Only): The Bone Created will be created on it's own Armature

Active Armature: The Bone Created will be created on the active Armature Object

Choose Armature: Works the Same way other Mode



Create Empties from Selected

Object	Edit Mesh	Edit Curve	Edit Armature	Pose
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DEMO

Object Mode (Individual)

Object Mode (Median)

Edit Mesh Mode (Individual)

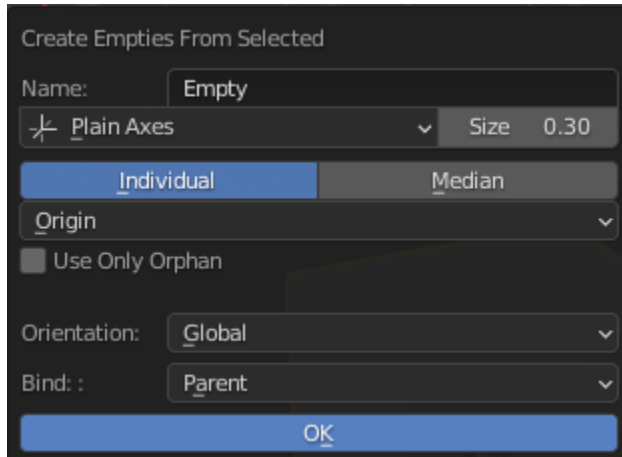
Edit Mesh Mode (Individual)

Edit Curve Mode (Individual)

Edit Curve Mode (Median)

Edit Armature / Pose Mode (Individual)

Edit Armature / Pose Mode (Median)



This Operator Create Empty from Selected Objects / Elements base on the context.

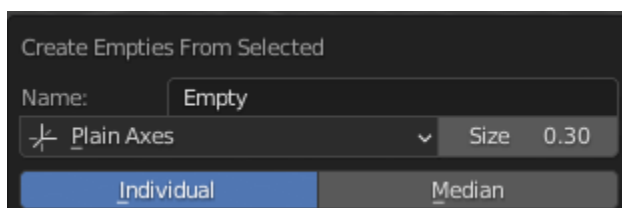
This Operator can Create One Empty at the Selected Midpoint or It can Create an Empties for each selected items.

Basic Parameter

Name: Base Name of the Empty

Empty Shape: Empty's Shape

Display Size: Empty's Display Size



Mode:

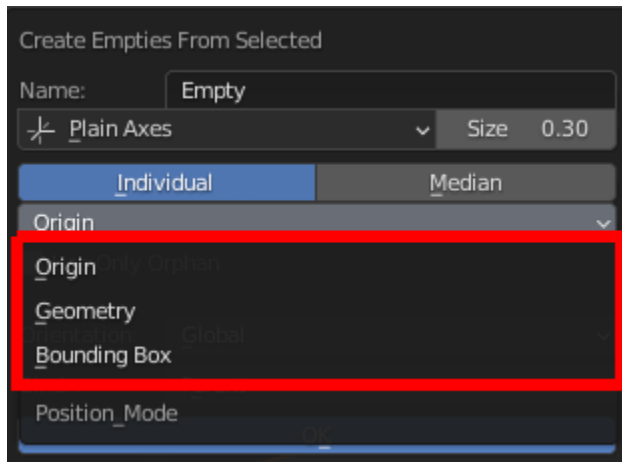
Median

Create One Empty at the Selected Object / Elements

Individual

Create Empties for each Selected Object / Elements

Position Mode (Object Mode Only)



Ways to Calculate Midpoint of the Objects

Origin

Use Object's Origin to create Empty or calculate Median

Geometry

Use Geometry's Midpoint/Median for Mesh, Curve or Armature Object to create Empty or calculate Median, Other type of Object will use it's Origin

Bounding Box

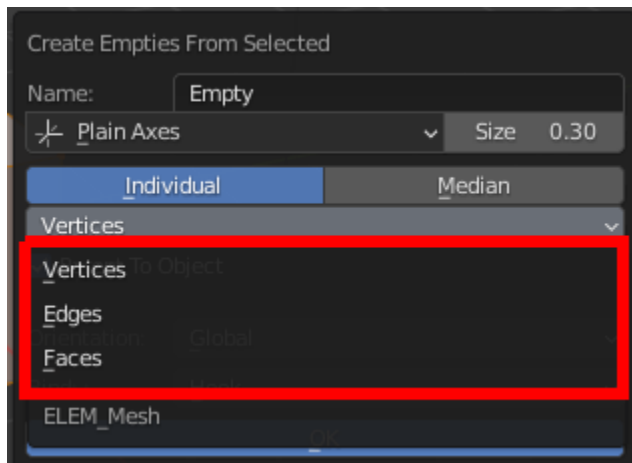
Use Geometry's Bounding Box Center for Mesh, Curve or Armature Object to create Empty or calculate Median, Other type of Object will use it's Origin

Elements

Elements use to create the Empties

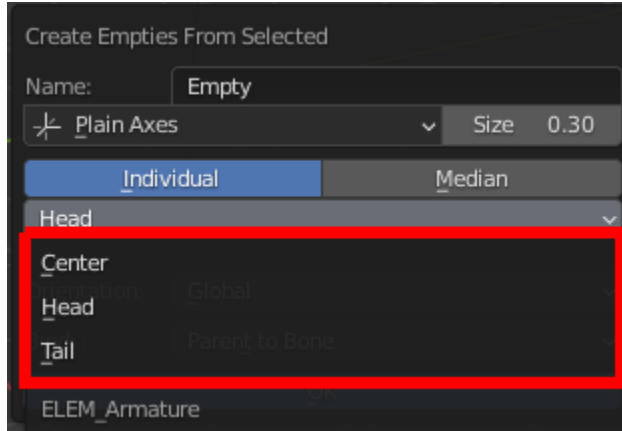
Edit Mesh (Individual Mode Only)

- Vertices
- Edges
- Faces

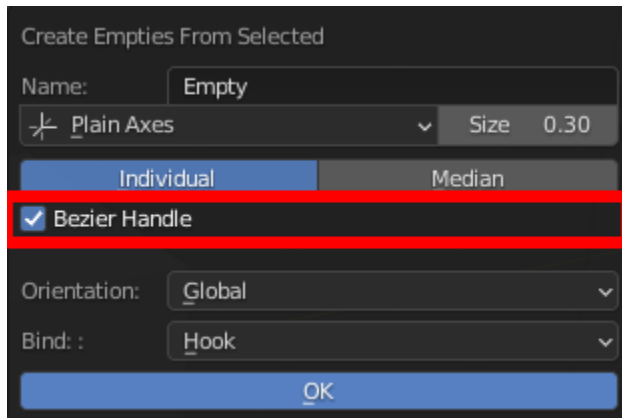


Edit Armature / Pose

- **Center:** Use Bone Center to Create Bone or to Calculate Median or Bounding Box
- **Head:** Use Bone Head to Create Bone or to Calculate Median or Bounding Box
- **Tail:** Use Bone Tail to Create Bone or to Calculate Median or Bounding Box



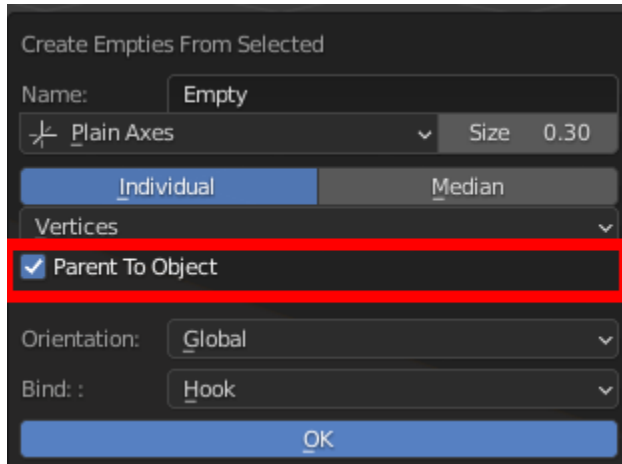
Bezier Handle (Edit Curve Only)



Create Empties For Bezier Handle

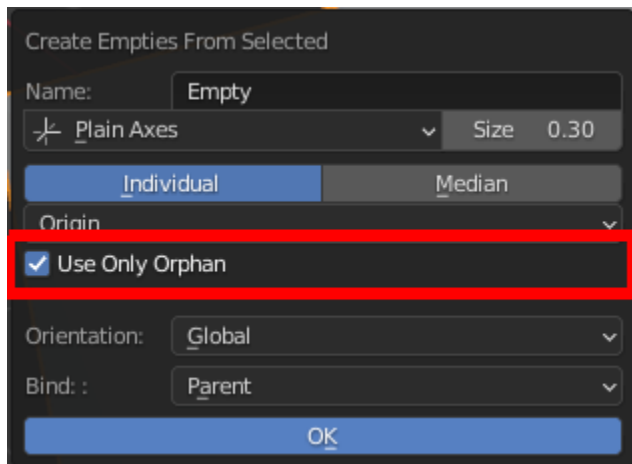
Parent To Objects (Edit Mesh Only)

Parent The Created Empties to it's Reference Object (Useful with Hook)



Use Only Orphan (Object Mode Only)

Ignore Objects with parents



Orientation

Set Up Bone's Tail Position

Global

Set the Orientation of the Empty to be 0 in the global space

Local

Set the Orientation of the Empty to be 0 in the Local space of the Reference Object

3D Cursor

Use the Orientation of 3D Cursor for the created Empty

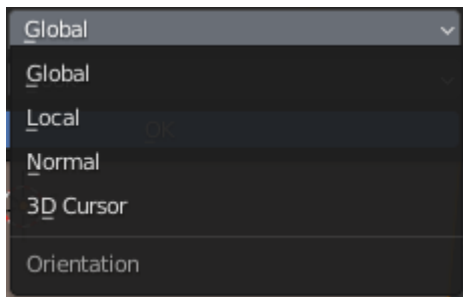
Roll (Edit Armature, Pose)

Use the Roll of the bone as Orientation for the created Empty

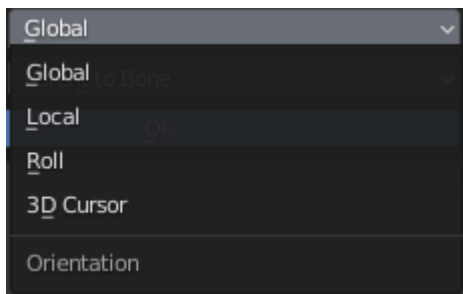
Normal (Edit Mesh Only)

Orient the Empty to the Normal of the Selected Vertex, Edge Center or Face

Edit Mesh Mode:



Edit Armature / Pose Mode:



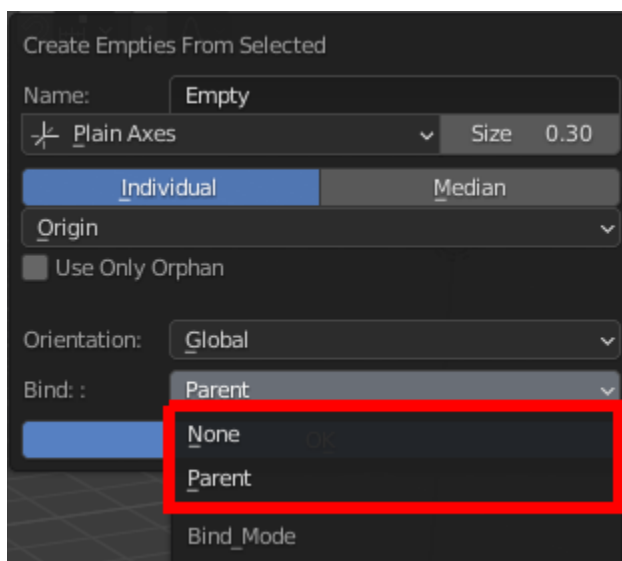
Bind Option

Bind Mode

Method to bind the selected objects/elements to created Empty

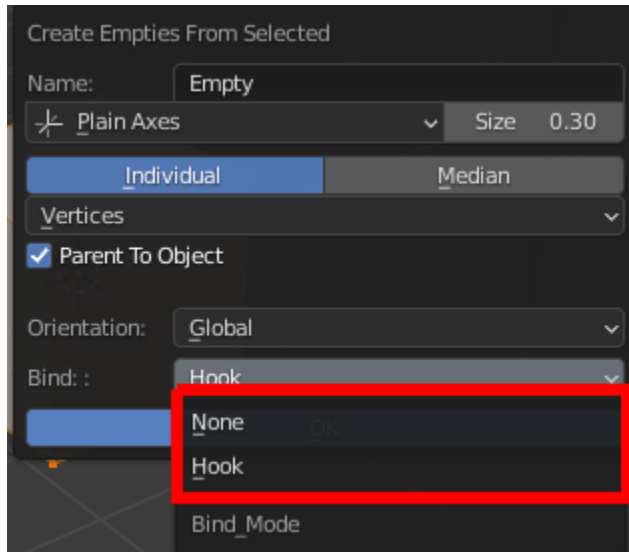
Parent (Object Mode)

Parent Reference Object to Created Empty

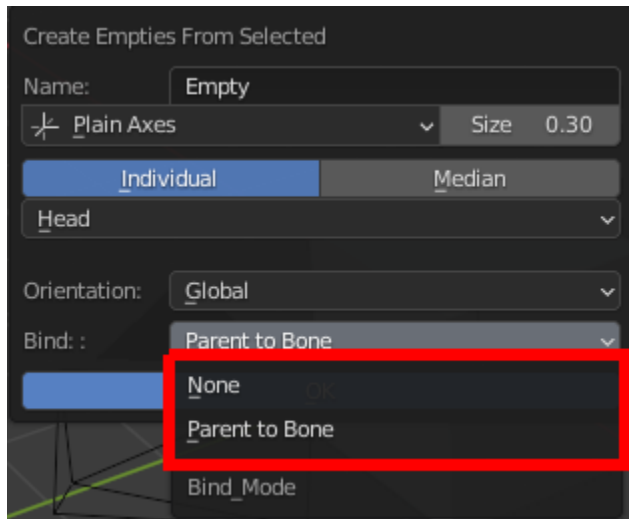


Hook (Edit Mesh and Edit Curve)

Hook selected Nurb Points, Bezier Points, Vertex, Edge or Face to Created Empty

**Parent To Bone (Edit Armature and Pose)**

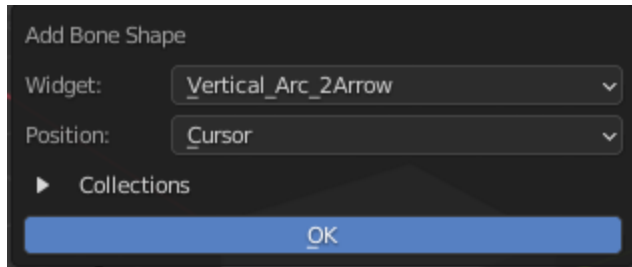
Parent Created Empties **TO** Reference Bone

**Add / Apply Bone Shape****Add Bone Shape**

Object

Add Bone Shape will Append Choice of Bone Shape to the Scene

You can Add Your Own Bone Shape / Widget by Editing the Widget.blend File in the /Widgets folder in the Addon Folder



Widgets

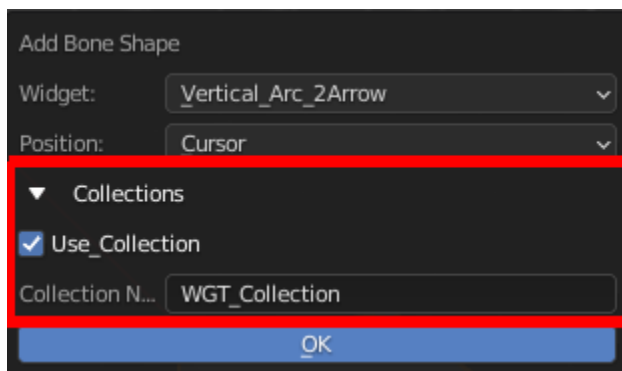
Pick the Widget that you want to Add

Position

Add the Bone Shape at the Center or 3D Cursor

Collection

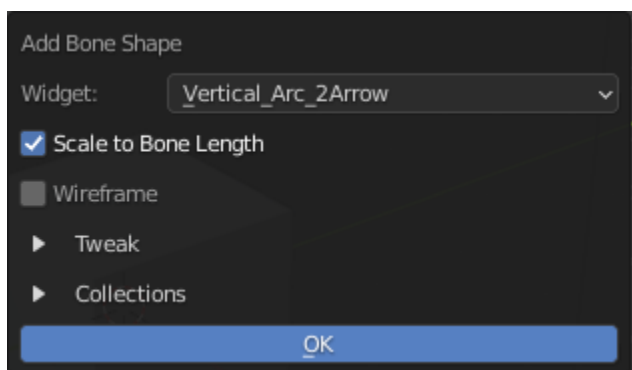
- **Use Collection:** Put the Widget Shape into a Collection
- **Collection Name:** Collection Name to put the Widget into



Apply Bone Shape

Pose

Apply Bone Shape will Append Choice of Bone Shape to the Scene and Apply to the Active Bone



Scale to Bone Length

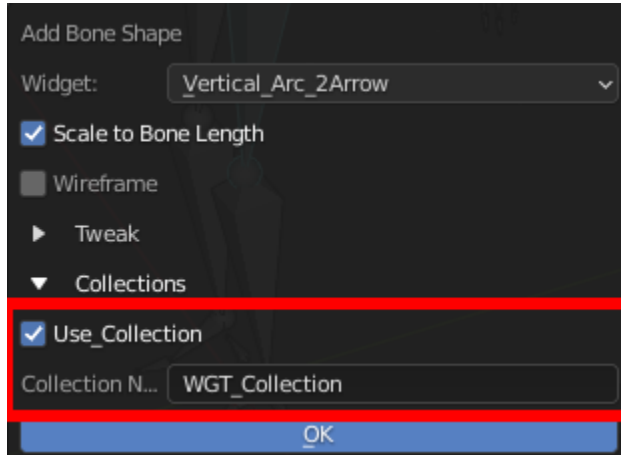
Turn on Scale to Bone Length Display Settings for the active bone

Wireframe

Turn on Wireframe Display for the active bone

Collection

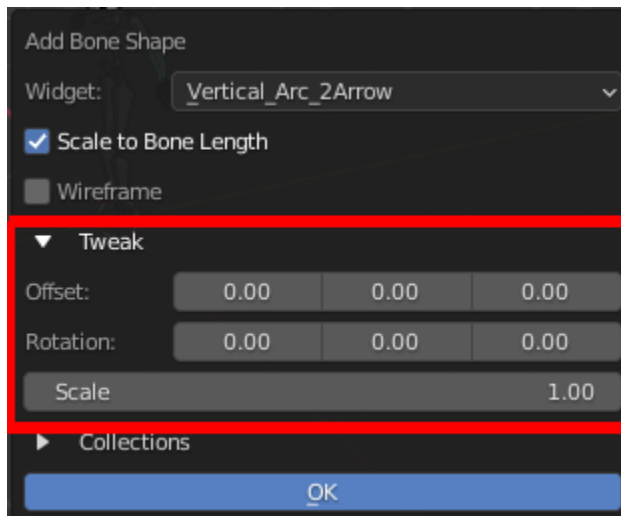
- **Use Collection:** Put the Widget Shape into a Collection
- **Collection Name:** Collection Name to put the Widget into



Tweak

Options To Tweak the Offset, Rotation and Scale of the Bone Shape

You can get live feedback of the tweak if you adjust it in the Pop Up at bottom left After Applying the operator



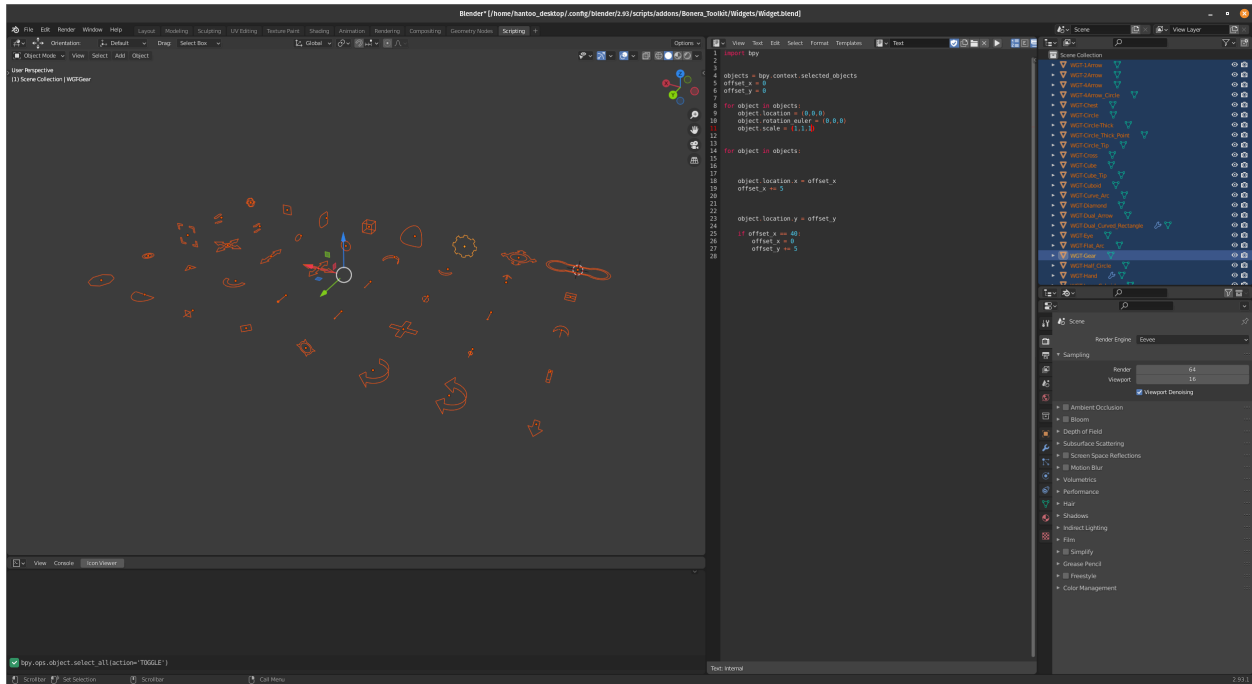
Adjustment

You can Tweak the Bone Shape and get the feedback Using the Pop Up Options At Bottom Left **After Apply the Operator**

The Bone Shape is Imported and Moved to the Exact Same Spot at the Bone, You can Edit the Mesh to Change the Bone Freely

Add Your Own Custom Bone Shape

You Add New Bone Shape By Editing **Bonera_Toolkit/Widgets/Widget.blend**



Just Create a Your Bone Shape in the Blend File, and rename it appropriately.

The Addon will automatically Use the Object Name with the prefix “WGT-” removed.

Optional

There is a Script in the File that helps you to organize the object nicely in the scene, this does not affect the imported object in any way. It just make the scene looks neater

About Blender Addon Directory

2.3.2 Bone Tool Operators

Bone Tools Are Tools that work with bones that are use for more specific scenario

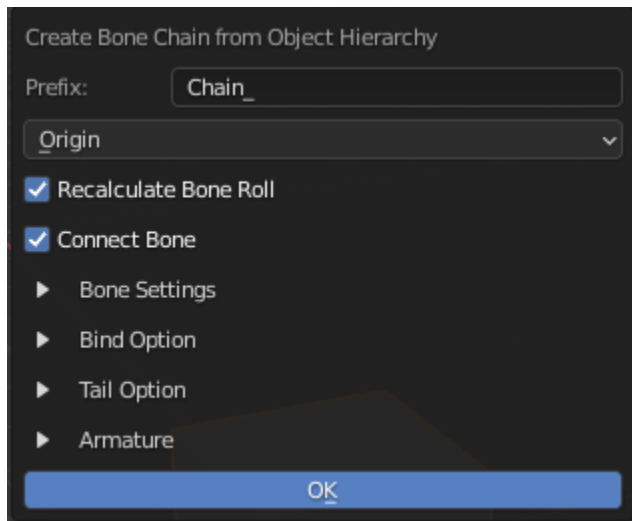
Bone Chain from Object Hierarchy

Object

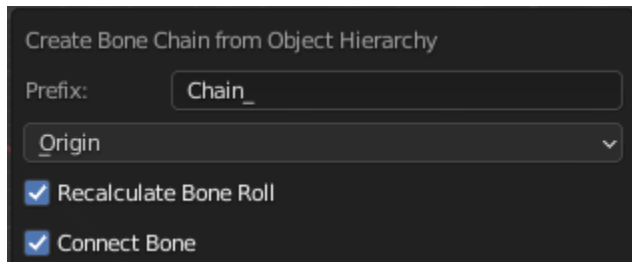
DEMO

This Operator Generates a Bone chain from Selected Objects, Using Object's Hierarchy

The Operator Creates the Bone Using the Object's Name



General Settings



Prefix: Prefix Added to the Created Bone, leave it blank if you do not want any prefix

Position Mode

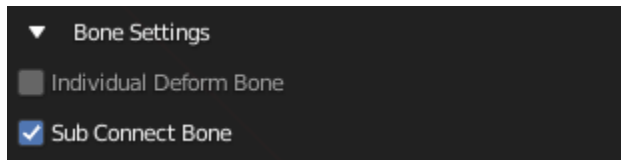
Position to Create the Bone (Uses Origin for not relevant objects)

- **Origin:** Use Object's Origin
- **Geometry:** Use Midpoint of Object's Geometry
- **Bounding Box:** Use Bounding Box Midpoint of Object's Geometry

Recalculate Bone Roll: Recalculate Created Bone to Local Z

Connect Bone: Tries to Connect Bone If Relevant

Bone Settings



Individual Deform Bone:

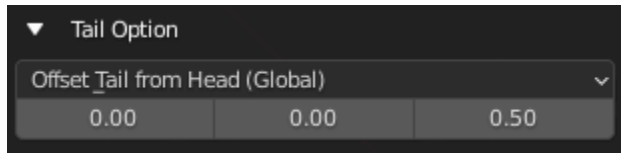
Create Individual Floating Deform Bone that parented to the chain instead of directly weighted to the chain bone

Sub Connect Bone:

Create Sub Connect Bone if there is more than one child

Tail Option

For Individual Deform Bone and the Most Outer Child



Tail Mode

Set Up Bone's Tail Position

Offset Tail From Head (Global)

Offset the tail from the head by the offset Vector in the Global Space

Offset Tail From Head (Local)

Offset the tail from the head by the offset Vector in the Local Space

Tail Offset Amount

The Vector Used to offset the tail

Armature Option

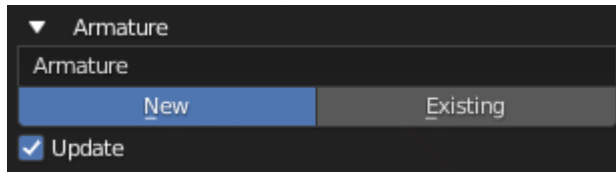
Armature Name / Armature Picker

Name for New Armature or Pick a Existing Armature to Add Bone to

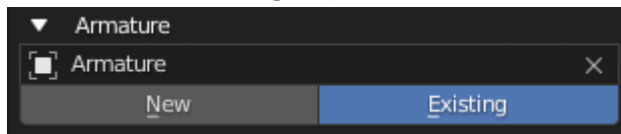
Armature Choice

Choose to create New Armature or Use Existing Armature

New: Create bone to a New Armature that uses the Name Above



Exist: Create bone to existing Armature above



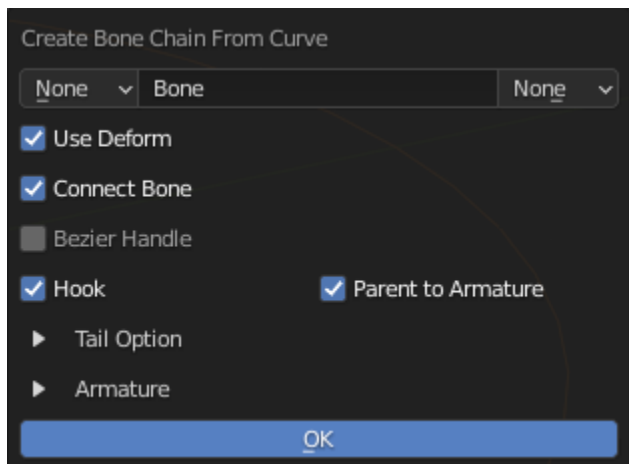
Update

Set the Operator to Existing and Use the Created Armature After Creating the Armature

Bone Chain From Curve

Object Edit Curve

This Operator Generates a Bone chain from Curve, The Created Curve follows the direction of the curve



Behaviour

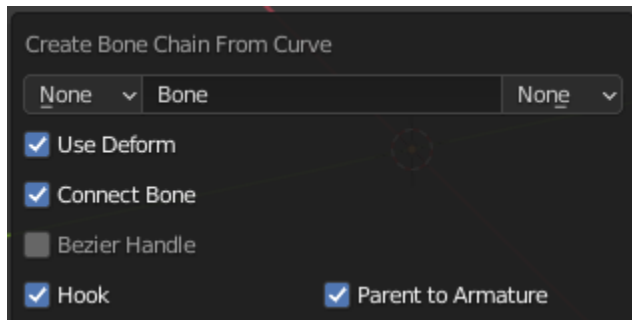
Object Mode

Create Bone Chain for all Nurb Points and Bezier Points for the Object

Edit Curve Mode

Create Bone Chain **selected** Nurb Points and Bezier Points for the Object

General Settings



Prefix: Add Prefix to Base name Base on Preferences

Base Name: Base Name of the Bone

Suffix: Add Suffix to Base name Base on Preferences

Use Deform: Turn On/Off Deform for created bone

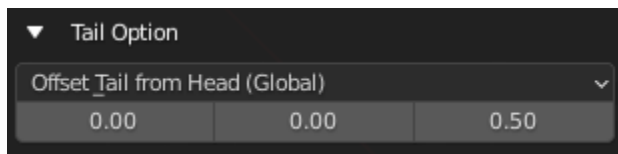
Connect Bone: Tries to Connect Bone If Relevant

Hook: Hook Curve Points to Created Bones

Bezier Handle (Edit Curve Only): Create Bones For Bezier Handle

Tail Option

For the Last Bone of each Chain



Tail Mode

Set Up Bone's Tail Position

Offset Tail From Head (Global)

Offset the tail from the head by the offset Vector in the Global Space

Offset Tail From Head (Local)

Offset the tail from the head by the offset Vector in the Local Space

Tail Offset Amount

The Vector Used to offset the tail

Armature Option

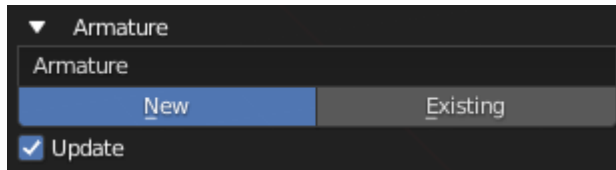
Armature Name / Armature Picker

Name for New Armature or Pick a Existing Armature to Add Bone to

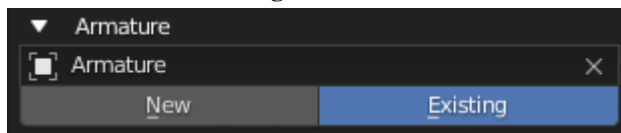
Armature Choice

Choose to create New Armature or Use Existing Armature

New: Create bone to a New Armature that uses the Name Above



Exist: Create bone to existing Armature above



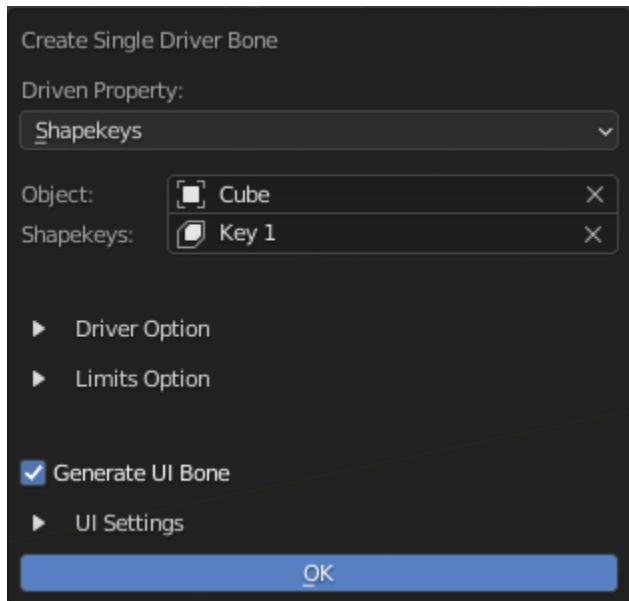
Update

Set the Operator to Existing and Use the Created Armature After Creating the Armature

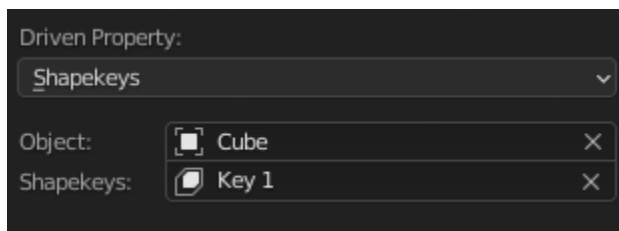
Add Single Driver Bone

Edit Armature

This Operator Creates A Bone Driving a Property



Driven Options



Driven Property: Types of Driven Property

Type of Property

Custom Properties

- **Object**
Custom Property of an Object
- **Data**
Custom Property of an Data of the Object (Mesh Data / Armature Data / Curve Data)
- **Pose Bone (Armature Object)**
Custom Property of a Pose Bone

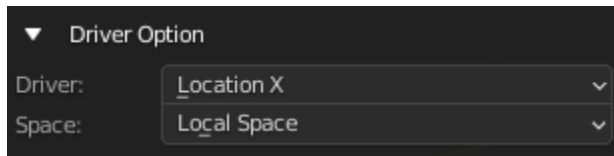
Shapekeys (Mesh Object)

- Shapekey to be driven by the Driver Bone

Object: Object with the property to be driven

Properties: The Property to be Driven

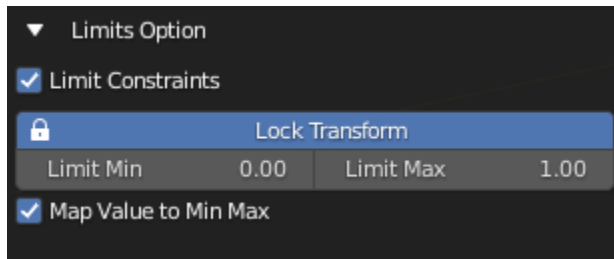
Driver Options



Driver: Property of the bone that drives the Driven Property

Space: The Space the Driver is using

Limit Options



Limit Constraints: Add Limit Constraint to the Driver Bone

Lock Transform: Lock the relevant Transform channel

Limit Min: Set the Minimum limit for the constraints

Limit Max: Set the Maximum limit for the constraints

Map Value to Min Max: Map the Value of the driven property from 0 - 1 to Minimum Limit and Maximum Limit

UI Settings

Info

Only Work if Driver setting is set to Location X



Generate UI Bone:

Generate the UI Bone with bone shape Including a Label Bone, Slider Bar Bone, and Add A Slider Bone Shape to Driver Bone

Label Bone:

Generate the Label Bone with it's bone shape text object

Label Offset: Offset Amount of Label Bone From Slider Bone

Slider Bar:

Generate Slider Bar with Bone Shape

Slider Bar Thickness: Thickness of Slider Bar

Slider Shape: Generate Slider Bone Shape for Driver Bone

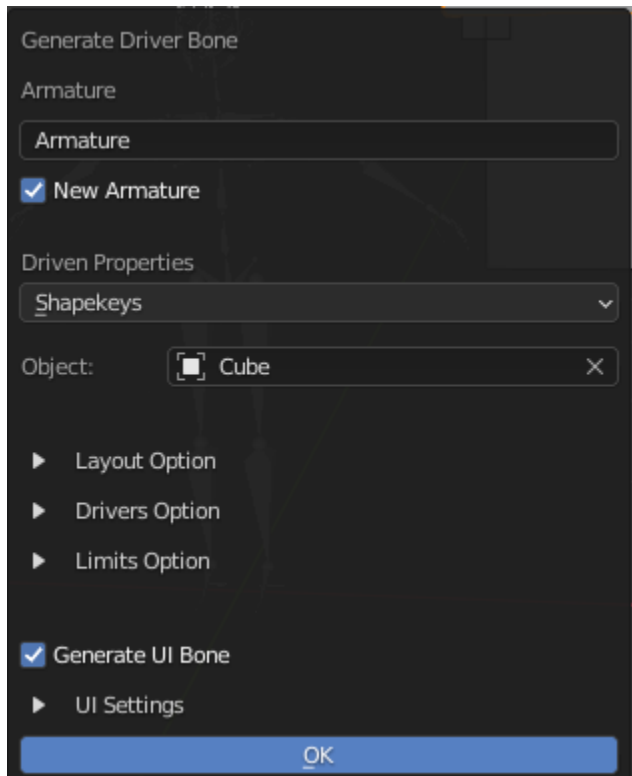
Info

Driver Bone, Label Name Bone and Slider Bone will be generated with this. The Label will use the Property Name as Label, You can Edit the Bone Shape Label as a text object

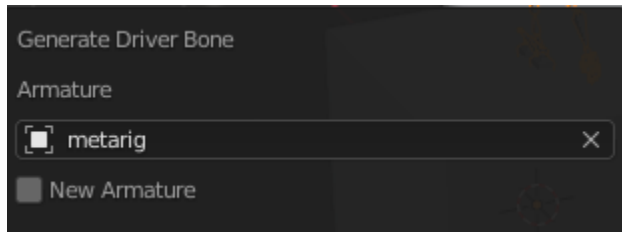
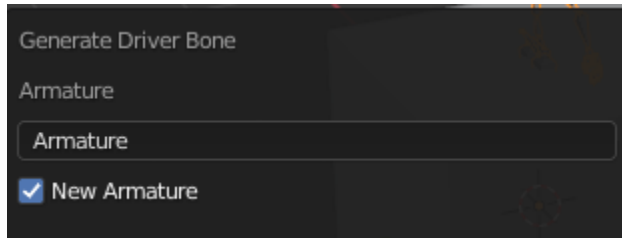
Generate Driver Bone

Object | Edit Armature

This Operator Creates Driving Bones for A type of Properties Layout in rows / column



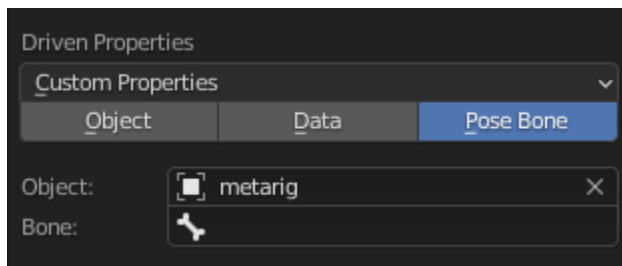
Armature Options



Armature Name / Picker: Armature Name for a New Armature or Existing Armature

New Armature: Create a New Armature for the Sliders

Driven Property



Driven Property: Types of Driven Property

Type of Property

Custom Properties

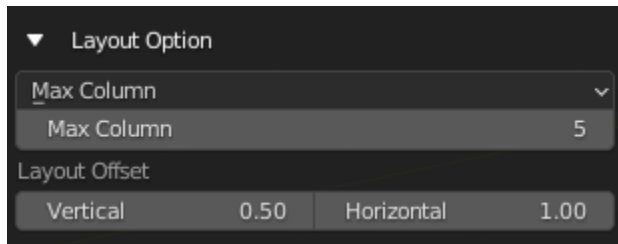
- **Object**
Custom Property of an Object
- **Data**
Custom Property of an Data of the Object (Mesh Data / Armature Data / Curve Data)
- **Pose Bone (Armature Object)**
Custom Property of a Pose Bone

Shapekeys (Mesh Object)

- Shapekey to be driven by the Driver Bone

Object: Object with the property to be driven

Layout Settings



Layout Settings:

Set the Layout setting to use Max Column or Max Row

- Max Column
- Max Row

Max Column / Max Row:

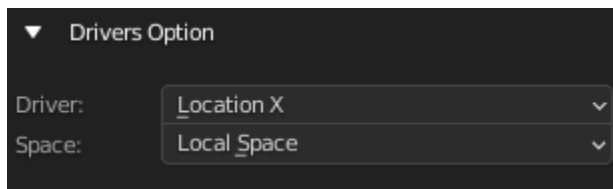
Max Column or Row before going to the next Row or Column

Layout Offset:

Offset Distance between the Sliders

- Vertical: Vertical Distance
- Horizontal: Horizontal Distance

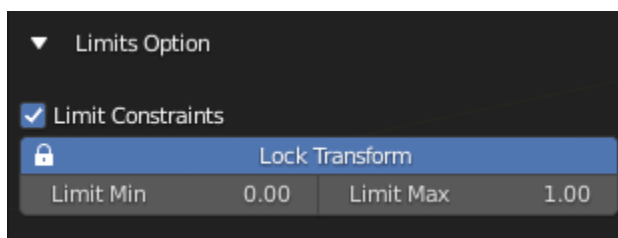
Driver Options



Driver: Property of the bone that drives the Driven Property

Space: The Space the Driver is using

Limit Options



Limit Constraints: Add Limit Constraint to the Driver Bone

Lock Transform: Lock the relevant Transform channel

Limit Min: Set the Minimum limit for the constraints

Limit Max: Set the Maximum limit for the constraints

Map Value to Min Max: Map the Value of the driven property from 0 - 1 to Minimum Limit and Maximum Limit

UI Settings



Generate UI Bone:

Generate the UI Bone with bone shape Including a Label Bone, Slider Bar Bone, and Add A Slider Bone Shape to Driver Bone

Label Bone:

Generate the Label Bone with it's bone shape text object

Label Offset: Offset Amount of Label Bone From Slider Bone

Slider Bar:

Generate Slider Bar with Bone Shape

Slider Bar Thickness: Thickness of Slider Bar

Slider Shape: Generate Slider Bone Shape for Driver Bone

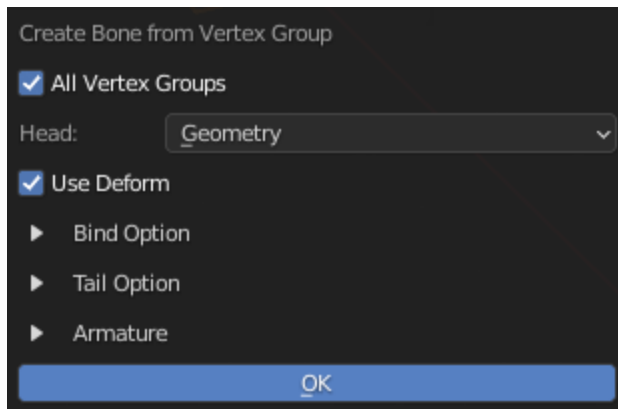
Info

Driver Bone, Label Name Bone and Slider Bone will be generated with this. The Label will use the Property Name as Label, You can Edit the Bone Shape Label as a text object

Bone From Vertex Group

Object

This Operator Creates Bones from Vertex Groups

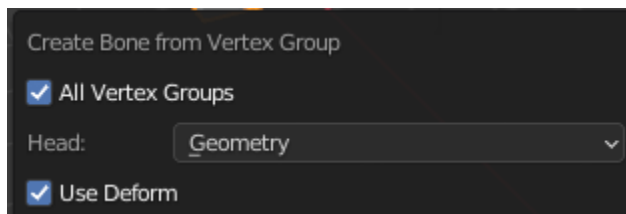


It Calculate the Median or Bounding Box Midpoint of the Vertex in the Vertex Group (Not Affected by Weight) and Create a Bone for it using the Vertex Group Name

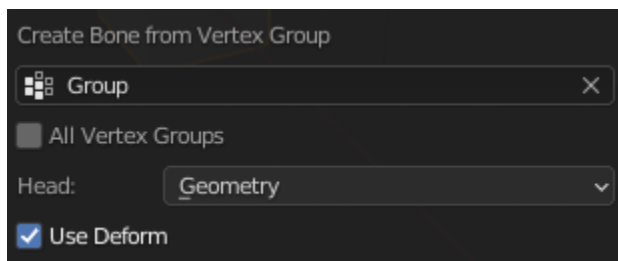
You can Create Bone by choosing One Vertex Group or you can Create Bone for All Vertex Group

General Option

All Vertex Groups: Use All Vertex Groups



Vertex Group (All Vertex Groups Off): Pick Vertex Group

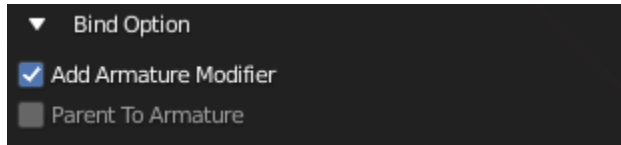


Position Mode

- **Geometry:** Calculate the midpoint of the Vertex Group
- **Bounding Box:** Calculate the Bounding Box Midpoint of the Vertex Group

Deform: Turn On/Off Deform for created bone

Bind Option



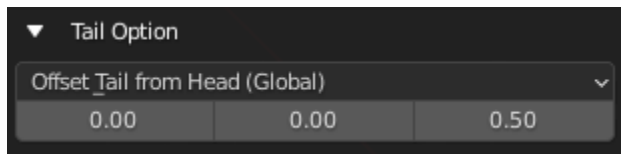
Add Armature Modifier:

Add Armature Modifier to Reference Objects

Parent To Armature:

Parent Reference Object to Armature

Tail Option



Tail Mode

Set Up Bone's Tail Position

Offset Tail From Head (Global)

Offset the tail from the head by the offset Vector in the Global Space

Offset Tail From Head (Local)

Offset the tail from the head by the offset Vector in the Local Space of the Reference Object

Tail Offset Amount

The Vector Used to offset the tail

Armature Option

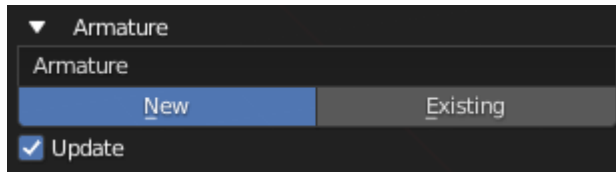
Armature Name / Armature Picker

Name for New Armature or Pick a Existing Armature to Add Bone to

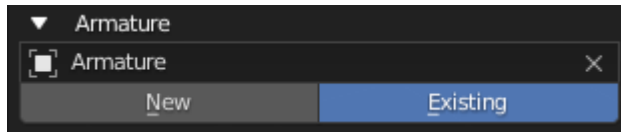
Armature Choice

Choose to create New Armature or Use Existing Armature

New: Create bone to a New Armature that uses the Name Above



Exist: Create bone to existing Armature above

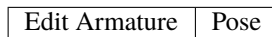


Update

Set the Operator to Existing and Use the Created Armature After Creating the Armature

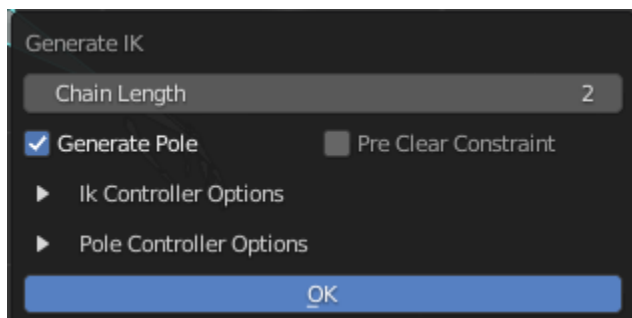
2.3.3 Generators Operators

Generate IK



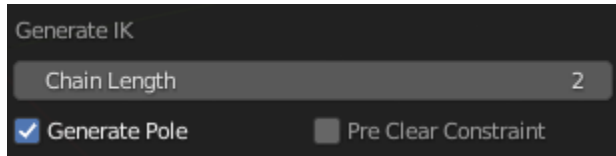
This Operator Helps Set Up IK for active bone

It Generate IK Controller Bone and Pole Bone if specified



This can be useful to Rig IK for Limbs

General Options



Chain Length: Chain Length the IK Constraint Use

Generate Pole: Generate Pole Bone

Pre Clear Constraint: Pre Clear Existing Constraint from the active Bone

Generate Pole: Generate Pole Bone

Pre Clear Constraint: Pre Clear Existing Constraint from the active Bone

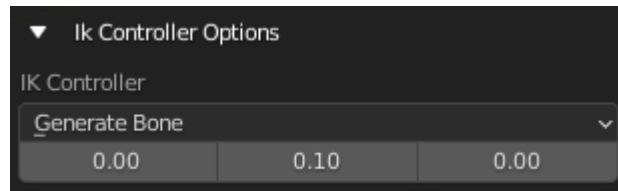
IK Controller Options

IK Controller Create Mode:

Method of creating ik controller

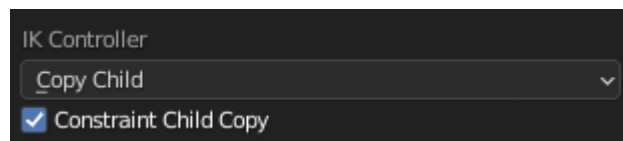
- **Generate Bone:** Create Controller at Tail of Active Bone, and Offset Tail from Head by Vector

Offset Vector: The Vector for Bone Tail to Offset from Bone Head



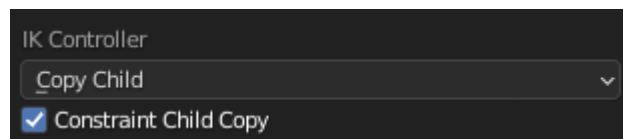
- **Use Existing Bone:** Use Existing Bone as IK Controller

Bone Picker: The bone to be use as IK Controller



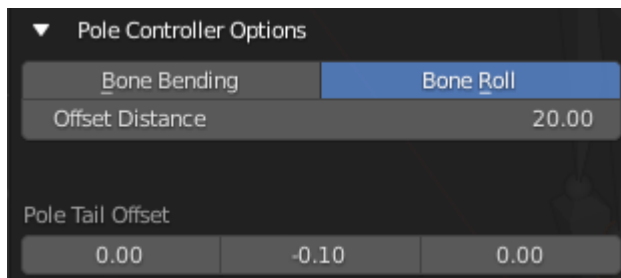
- **Copy Child:** Copy the First Child of Active Bone and Use it as IK Controller

Constraint Child Copy: Constraint IK Controller to the Reference Child Bone



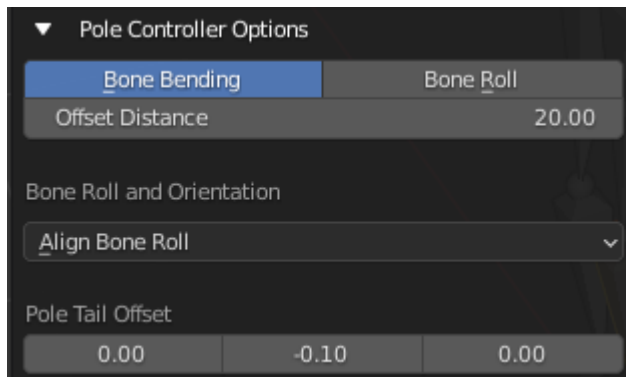
Pole Controller Options

Pole Mode:



- **Bone Bending:** Create Pole Bone Base on the Bone Bending
- **Bone Roll:** Create Pole Bone Base on the Bone Roll
- **Offset Distance:** Distance Offset from the Active bone (Not Consistent)

Bone Roll and Orientation (Bone Bending):



- **Align Bone Roll:** Align Bone Roll to the Pole Bone (Avoid using this on Already Animated Rig)

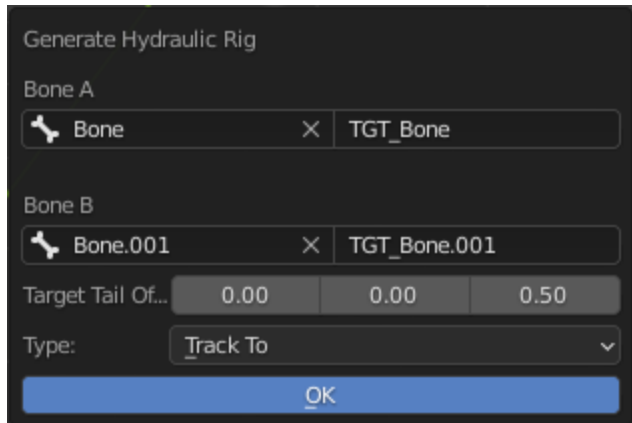
Pole Tail Offset: Offset amount for Bone Tail From Bone Head

Generate Hydraulic

Edit Armature	Pose
---------------	------

This Operator Takes Two Bone, Create Target Bone, and Use Constraint to Track to Each Other

It Automatically Takes Active Bone as the First Bone, and the first Selected Bone in the index that is not the Active Bone as the second bone



Bone A: First Bone

A Target Name: First Bone's Target Bone's Name

Bone B: Second Bone

A Target Name: Second Bone's Target Bone's Name

Target Tail Offset: Vector that Offset Tail from Bone Head

Type: Type of Track To Constraint to Use

Lock Axis (Locked Track Only): Locked Axis for the Locked Track Constraints

Info

Just Select Two Bone and Run the Operator, The Bone Selection in the Pop Up is just for you to Make Correction for the Bone Selection

2.3.4 Utility Operators

Utility Tool that Helps in your Manual Rigging Workflow

Orphan Parents

Object	Edit Armature
--------	---------------

Object Mode

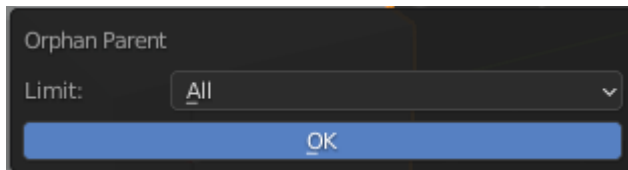
Parent Object that have no Parent to Active Object

Edit Armature Mode

Parent Bone that have no Parent to Active Bone

General Options

This Operator Parent All or Selected Objects or Bones that have no parent to the Active Object or Bone



Limit:

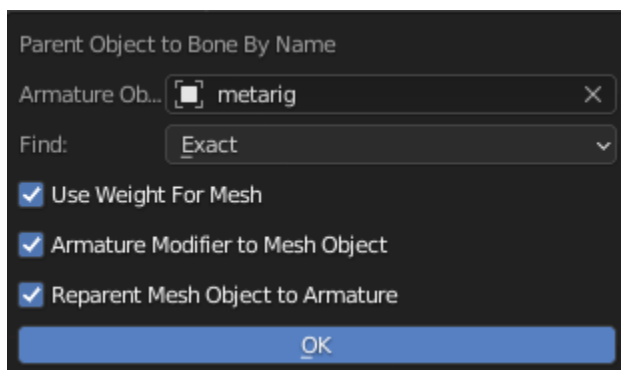
- **All:** Orphan Parent on All Object/Bones in Scene to the Active Object/Bone
- **Selected:** Orphan Parent on Selected Object/Bones to the Active Object/Bone

Parent Object to Bone by Name

Object

This Operator Parent or Apply Weight Objects to an Armature Bones Base by matching the object name and Bone Names

General Options



Armature Object: The Armature Object to Match the Selected Objects Name to Parent to

Find:

- **Exact:** Match the name only if the name are exact
- **Include:** Match the name if the object name is include in bone name

Use Weight For Mesh:

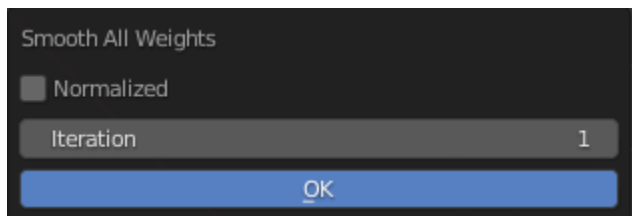
Create Vertex Group for the Object instead of Parent to Bone if the object type is Mesh

- **Armature Modifier to Mesh Object:** Create Armature Modifier for the Object if the object type is Mesh
- **Reparent Mesh Object To Armature:** Parent Mesh Object to the Armature

Smooth All Weights

Object	Edit Mesh	Weight Paint
--------	-----------	--------------

This Operator Apply Smooth to All Vertex Group's Weight Paint



General Options

Normalized: Normalize the Vertex Group weight

Iteration: The Amount Times The Smooth is Repeated applied

Create Vertex Group From Objects

Object

This Operator Add Adds All selected object's Vertex into A Vertex Group With It's own Name

Info

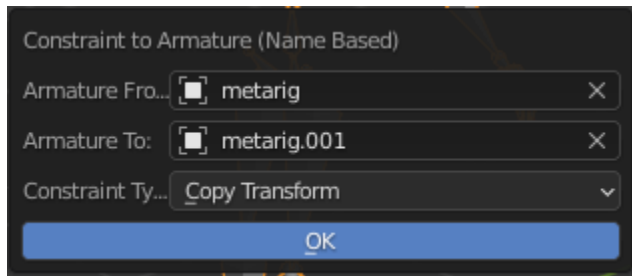
This Operator will Execute immediately without Any Pop Ups

Constraint to Armature

Object

This Operator Constraint All Bone from one Armature to Another Armature Bones based on Name

General Option



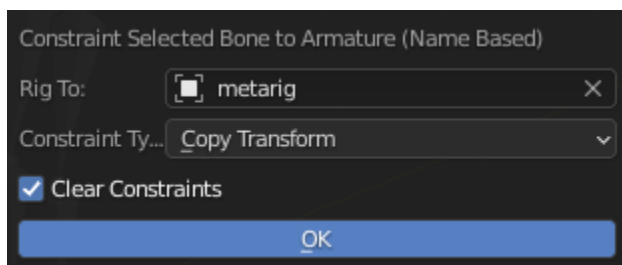
- **Armature From:** Armature to give Constraint to
- **Armature To:** Target Armature for the Constraint
- **Constraint Type:** Type of Constraint

Constraint Selected Bones to Armature

Pose

This Operator Constraint Selected Bone from one Armature to Another Armature Bones based on Name

General Option



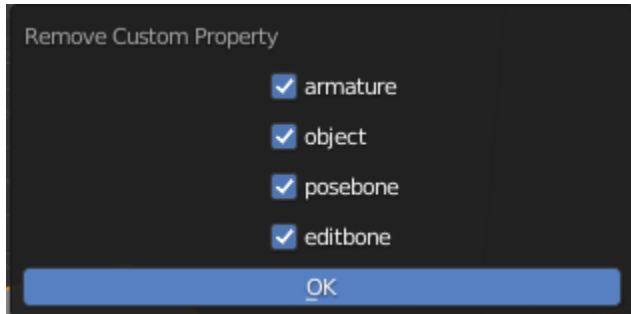
- **Rig To:** Target Armature for the Constraint
- **Constraint Type:** Type of Constraint

2.3.5 Cleanup Operators

Operators that helps cleans up Armature or Object to start a Object or Armature a New Clean Slate

Remove Custom Property

Operator that removes Custom Property from Object, Armature Data, or Bones



Parameter

- **armature:** Removes Custom Property from active Object's Armature Data
- **object:** Removes Custom Property from active Object
- **editbone:** Remove Custom Property from all Pose Bones in Pose Mode
- **posebone:** Removes Custom Property from all Edit Bones in Edit Mode

Remove Animation Data

Operator that Clear your Animation Data from the Active Object

that means it will:

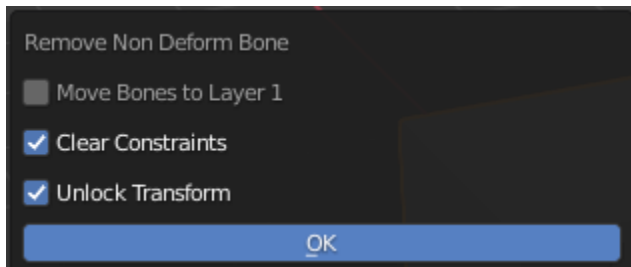
1. Detach the object's current Action
2. Remove All Drivers on the objects
3. and Remove NLA Tracks from the object

Info

This Operator will Execute immediately without Any Pop Ups

Remove Non Deform Bone

Remove all Non Deform Bone from Armature



Move Bones to Layer 1

Move All Remaining Bone to Layer 1

Clear Constraints

Remove Constraints from All Bone

Unlock Transform

Unlock All Transform

Remove Bone Shapes

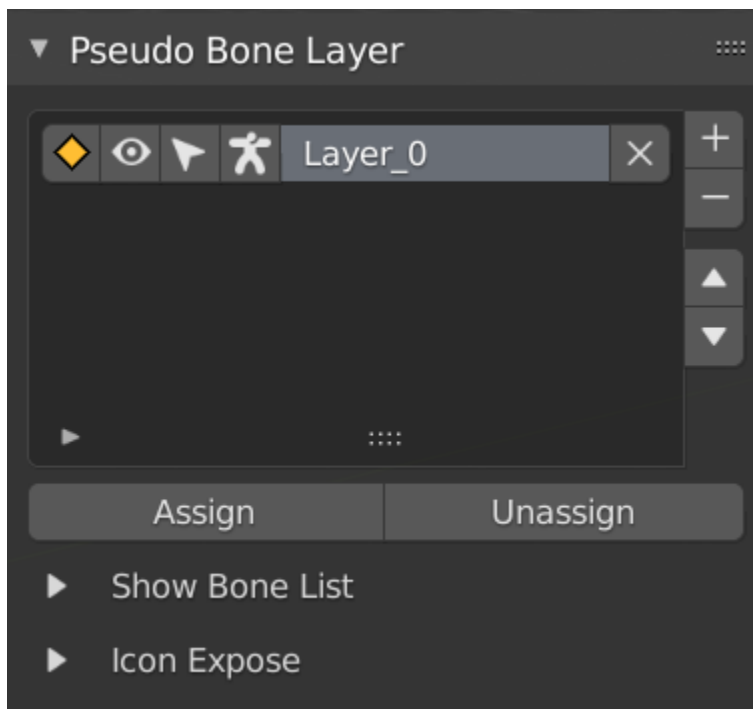
Remove Bone Shape from All bone in Active Armature

Info

This Operator will Execute immediately without Any Pop Ups

PSEUDO BONE LAYER

Select Armature Object



Pseudo Bone Layer is a Throwaway Layer System made just for temporary Bone Management to Group Bones together for Editing Purpose

This is not meant to be use as a Final Bone Layer System

The Pseudo Bone Layer Stores Bone Name in it's layer and allow you to do different operation easily

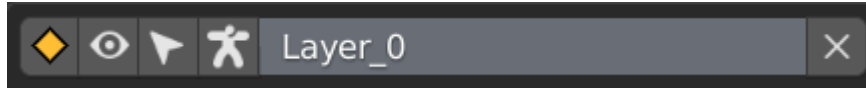
3.1 Main Operator

Assign: Assign Bone to the Active Layer, Create one if there are no layers

Unassign: Unassign Bone from the Active Layer

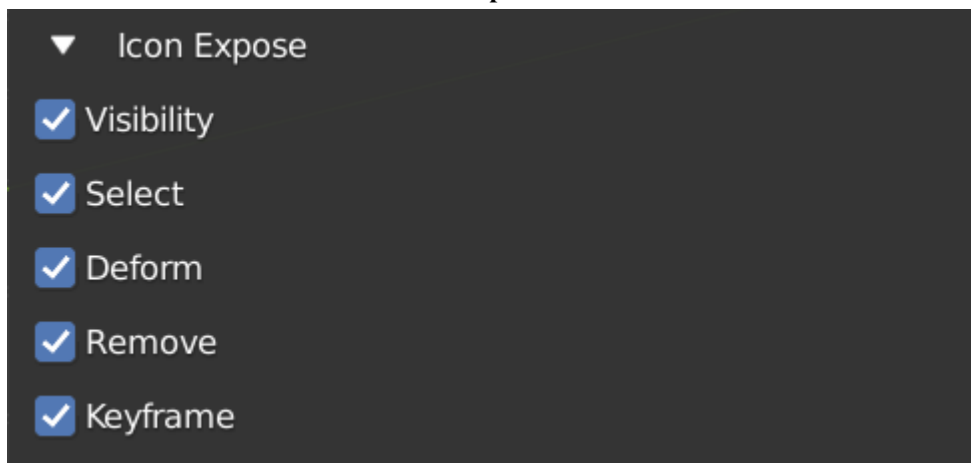
3.2 Icons

Layer Icons:



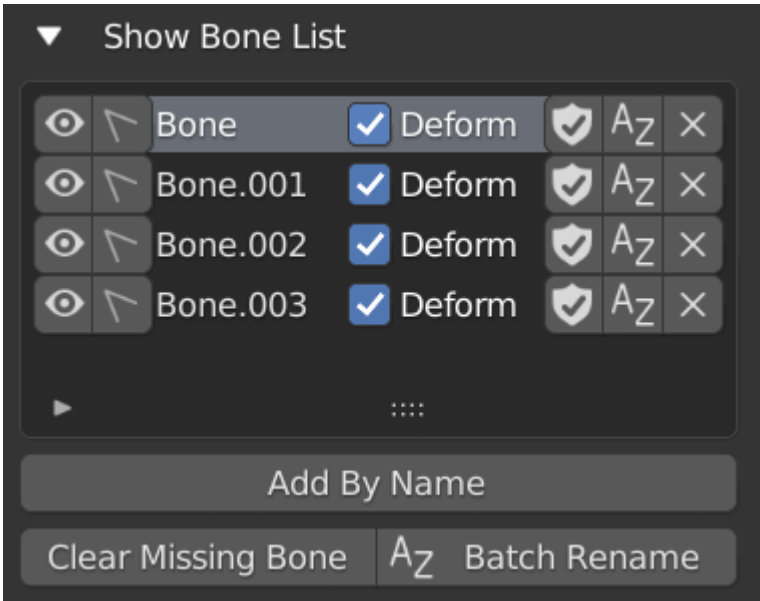
- **Keyframe (Pose Mode Only):** Keyframe the bone in Layer
- **Visibility:** Toggle Hide / Unhide of the bone in the layer (Similar to pressing H to Hide)
- **Select:** Toggle Select / Des, Create one if there are no layersselect of the bone in the layer
- **Deform:** Set the Deform State of the Bone in the Layer
- **Remove:** Remove Layer

You Can Enable or Disable the Icons in Icon Expose



3.3 Bone List

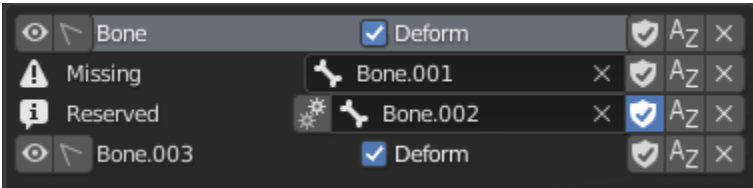
A Listbox that Shows the Bone Name Saved in the Active Layer, you can add or remove bone name manually



3.4 Icons

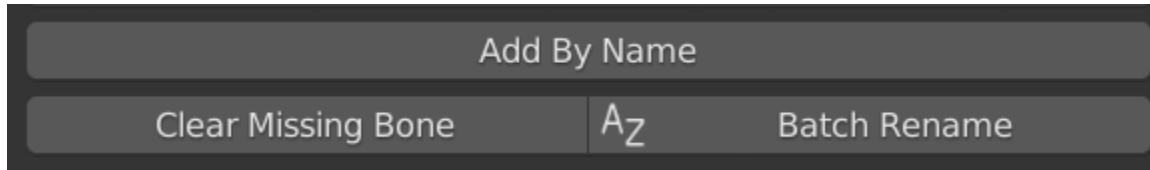
- **Visibility:** Visibility of the Bone
- **Select:** Select State of the Bone
- **Deform:** Deform Property for the Bone
- **Reserve:** Prevent this Bone Name to be removed from “Clear Missing Bone” if the bone is missing
- **Rename:** Rename the Bone
- **Remove:** Remove the Bone Name from the Layer

Missing Bone



Missing Bone: If there are missing bone, It will look like this, You can change the bone for the slot or Edit the name

3.5 Bone List Operator



- **Add By Name:** Add a Bone Name to the Layer, Regardless if the bone exist or not. (Reserved will be on)
- **Clear Missing Bone:** Remove Missing Bone that are not reserved from the layer
- **Batch Rename:** Batch Rename the Bone in the Layer

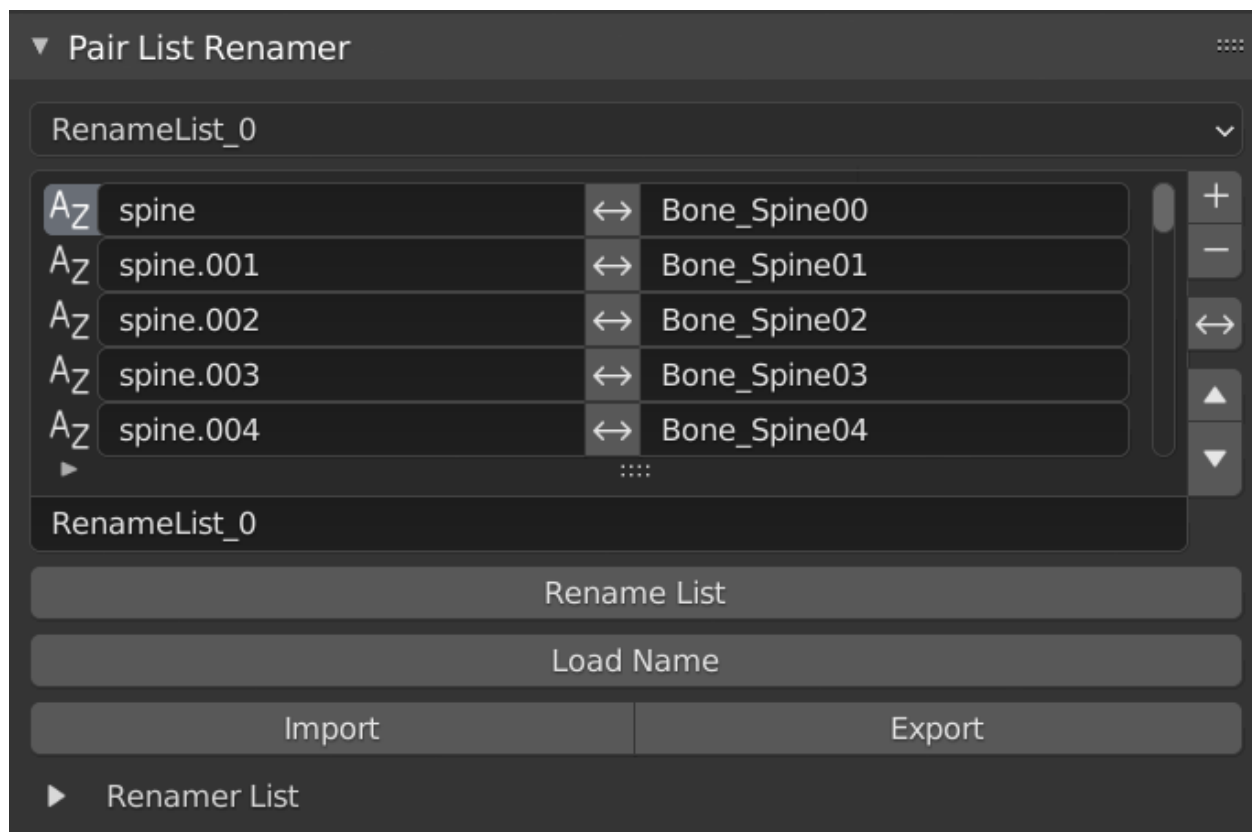
Warning: Note: Because it saves bone name only, if you rename your bone then the bone is no longer affected by the layer

PAIR LIST RENAMER

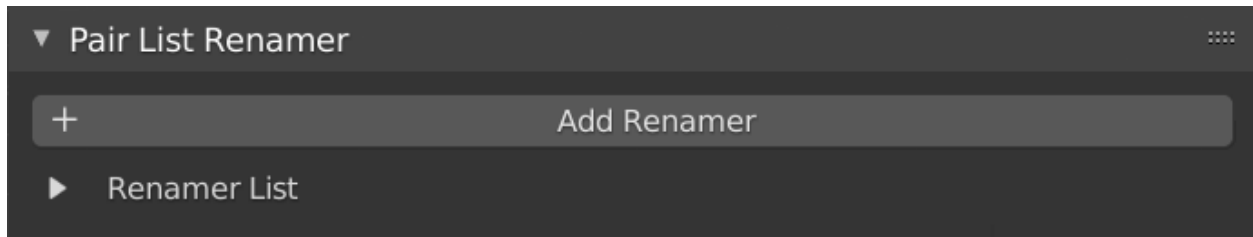
Pair List Renamer is a Tool to Rename a list of name to another pair of list of name. This tool can rename Bone Name, Vertex Group, and Shapekeys

This tool is useful if you have two Naming Convention and you want to match rename multiple file of it.

You can Export the Renamer List as JSON file to be imported into other file for use.

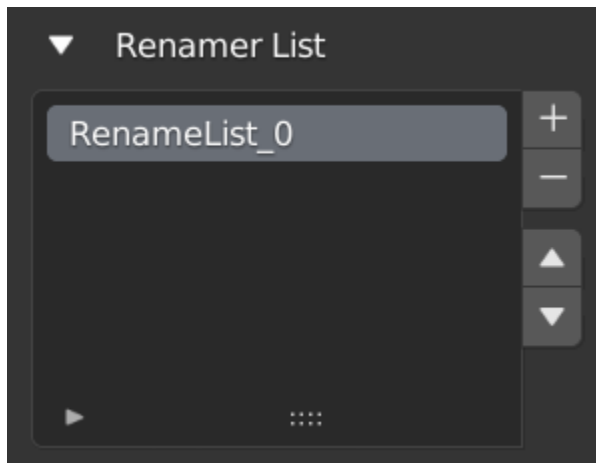


4.1 Initial



When You First time Open the Panel, there is no Renamer List, and you need to Create One

4.2 Renamer List

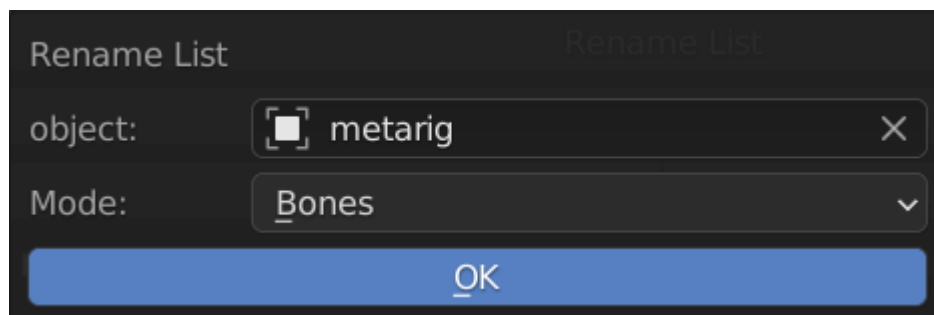


Renamer List is a way to organize your renamer

4.3 Operator

Rename List

Using the List to Match Rename the Name on the Left to the Name on the Right



Object

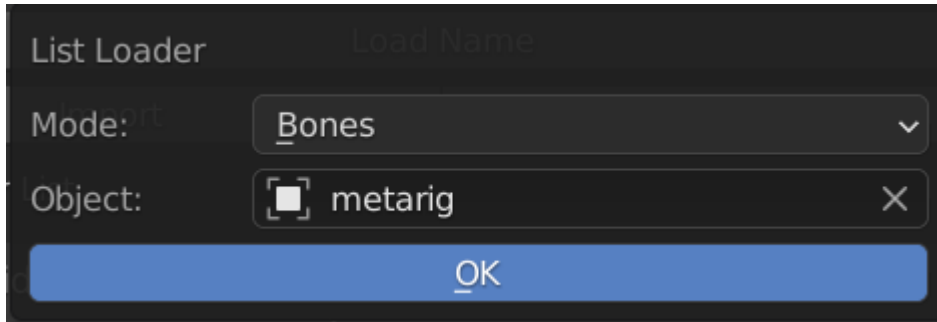
Object to be Rename

Mode

- **Bones (Armature Object):** Match Rename the Bone using the Pair List
- **Vertex Groups (Mesh Object):** Match Rename the Vertex Groups using the Pair List
- **Shapekeys (Mesh Object):** Match Rename the Shapekeys using the Pair List

Load Name

Load Vertex Groups / Bones / Shapekeys Name into the list

**Object**

Object to be Rename

Mode

- **Bones (Armature Object):** Match Rename the Bone using the Pair List
- **Vertex Groups (Mesh Object):** Match Rename the Vertex Groups using the Pair List
- **Shapekeys (Mesh Object):** Match Rename the Shapekeys using the Pair List

Export & Import

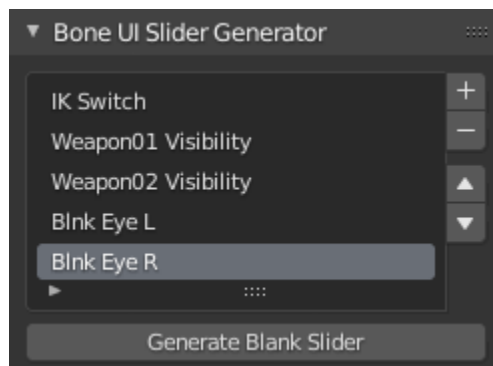
Export or Import the List into Json File to be use in other blender file

BONE UI SLIDER GENERATOR

Select Armature Object

5.1 Panel

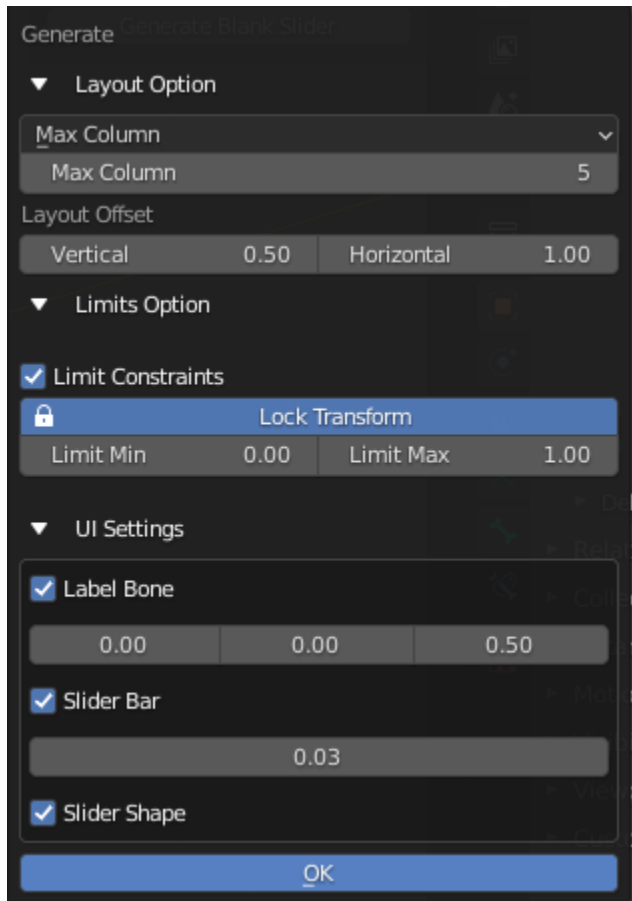
Bone UI Slider Generator is a listbox that list out a list of name that wanted to be use to create a bunch of “Blank Slider Bones”



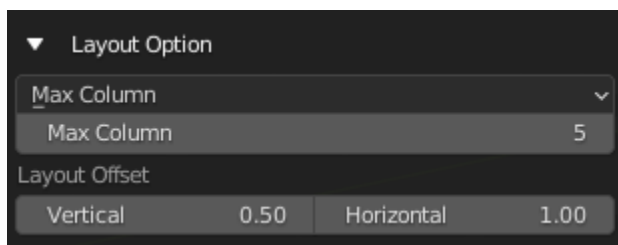
5.2 Generate Blank Slider

Edit Armature

This Operator Generate Blank Slider (No Driver) Base on the Name in the List



5.2.1 Layout Settings



Layout Settings:

Set the Layout setting to use Max Column or Max Row

- Max Column
- Max Row

Max Column / Max Row:

Max Column or Row before going to the next Row or Column

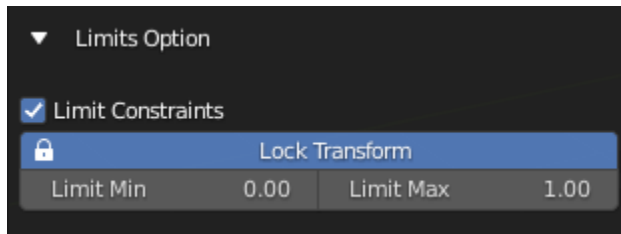
Layout Offset:

Offset Distance between the Sliders

- Vertical: Vertical Distance

- Horizontal: Horizontal Distance

5.2.2 Limit Options



Limit Constraints: Add Limit Constraint to the Driver Bone

Lock Transform: Lock the relevant Transform channel

Limit Min: Set the Minimum limit for the constraints

Limit Max: Set the Maximum limit for the constraints

Map Value to Min Max: Map the Value of the driven property from 0 - 1 to Minimum Limit and Maximum Limit

5.2.3 UI Settings



Label Bone:

Generate the Label Bone with it's bone shape text object

Label Offset: Offset Amount of Label Bone From Slider Bone

Slider Bar:

Generate Slider Bar with Bone Shape

Slider Bar Thickness: Thickness of Slider Bar

Slider Shape: Generate Slider Bone Shape for Driver Bone

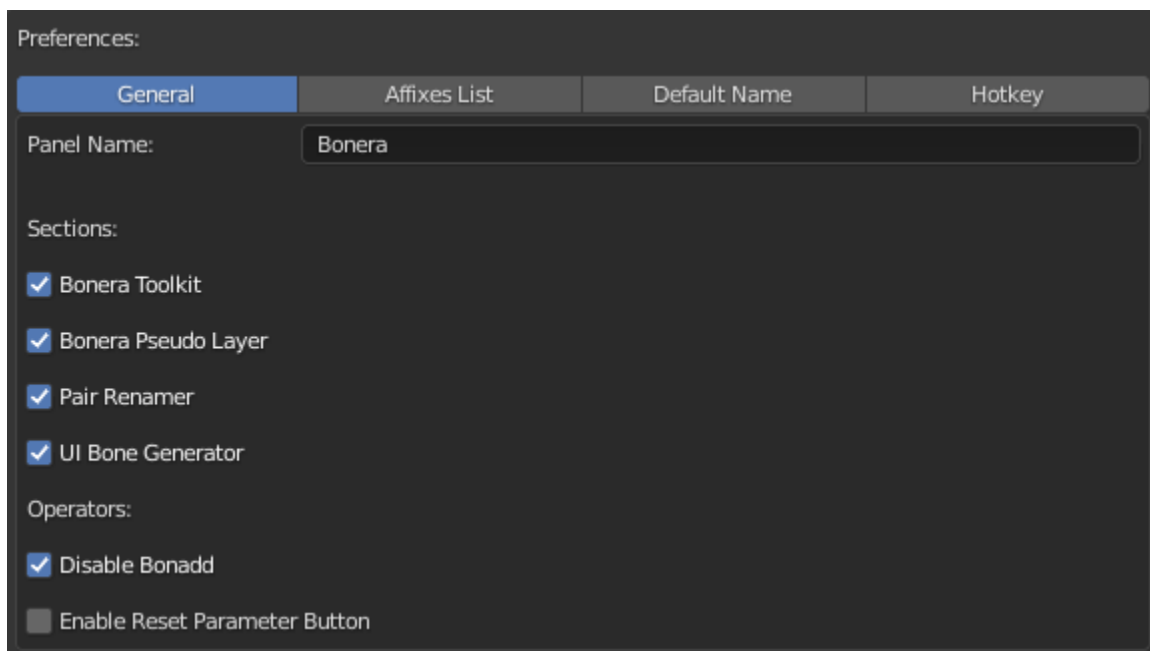
Info

Driver Bone, Label Name Bone and Slider Bone will be generated with this. The Label will use the Property Name as Label, You can Edit the Bone Shape Label as a text object

PREFERENCES

There Are Four Tabs in Bonera's Preferences

6.1 General



6.1.1 Panel Name

Panel Name for the Addon

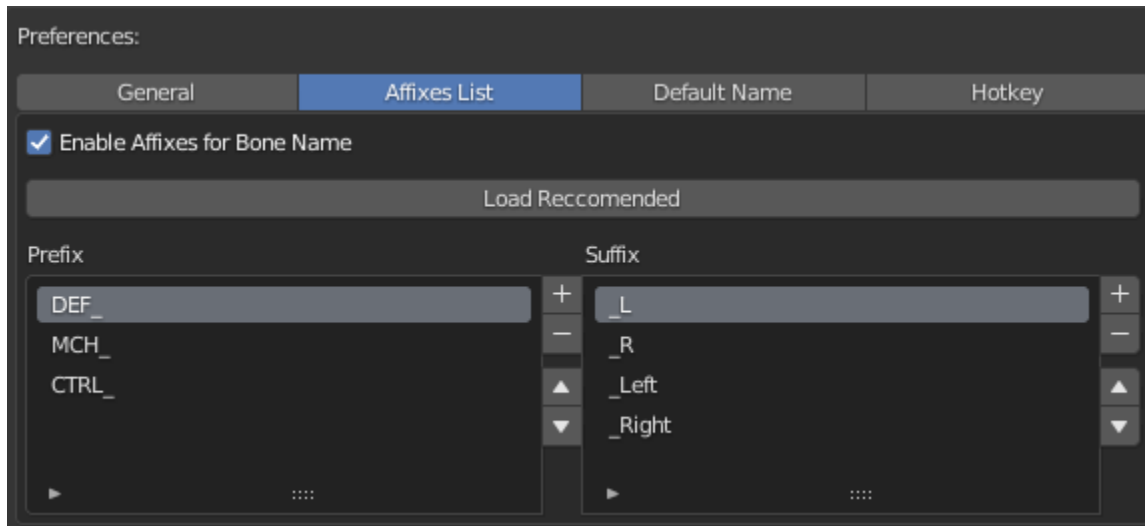
6.1.2 Section

Enable or Disable Panel

6.1.3 Operators

Enable or Disable Operators to Be Shown in Menu or Panel

6.2 Affixes List

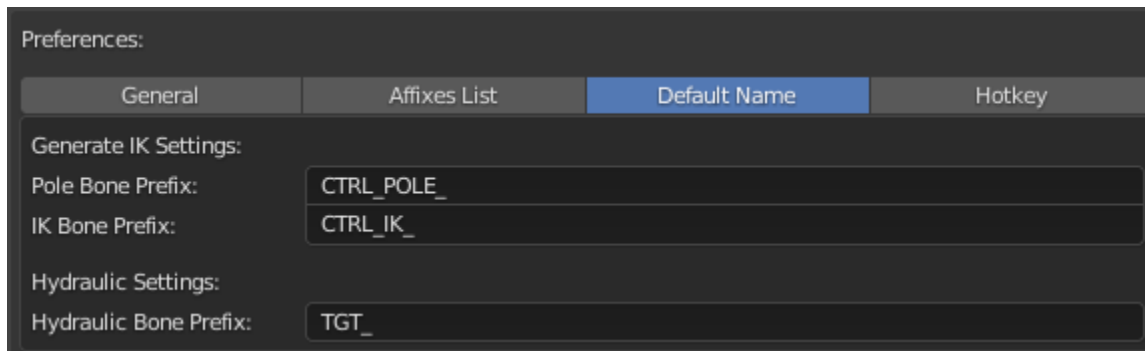


Enable Affixes for Bone Name: Make Relevant Operator to Use the Affix System

Load Reccomended: Load the Commonly Used Prefix and Suffixes

Prefix & Suffix: The List to be use as Prefix or Suffix

6.3 Default Name

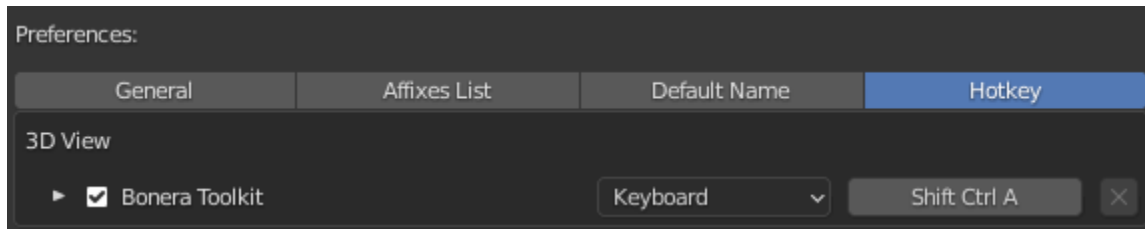


Pole Bone Prefix: Default Prefix for Generate IK Operator's Generated Pole Bone

IK Bone Prefix: Default Prefix for Generate IK Operator's Generated Controller Bone

Hydraulic Bone Prefix: Default Prefix for Generate Hydraulic Operator's Generated Target Bone

6.4 Hotkey



Hotkey: Hotkey to bring out Bonera Toolkit Menu