Root Motion Creator v1.0

Thank you for purchasing Root Motion Creator!

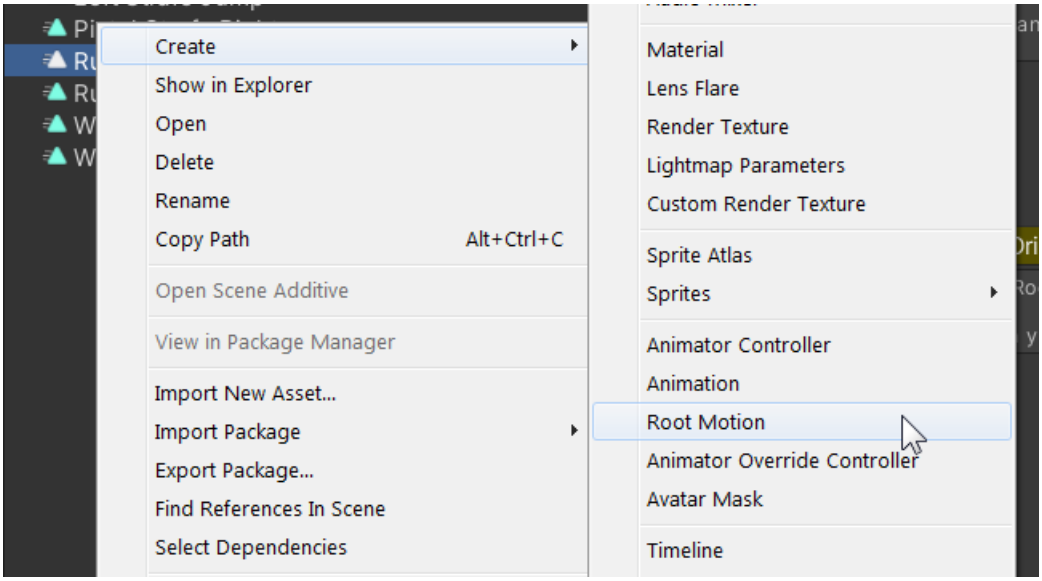
This is one-click tool to add **Root Motion** to In-Place animations. The tool works completely automatically and does not require user intervention. Just specify animation and model for it. The tool will do the rest itself: one click and your In-Place animation become animation with Root Motion!

The tool predicts any movement kinds: walking, running, strafe, backward moving, run plus jump, etc. Also it works with any types of models: humanoids, robots, animals and so on.

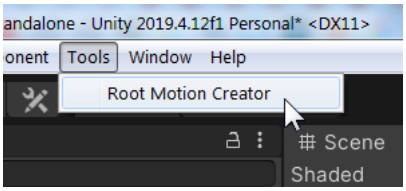
Root Motion Creator supports **Humanoid**, **Generic** and **Legacy** animations. The tool analyzes foots/legs movement and generates animation curves for motion of root node. Curves are stored inside animation. You do not need any additional scripts for your model. Just do not forget toggle Apply Root Motion checkbox in your Animator ☺

How to use

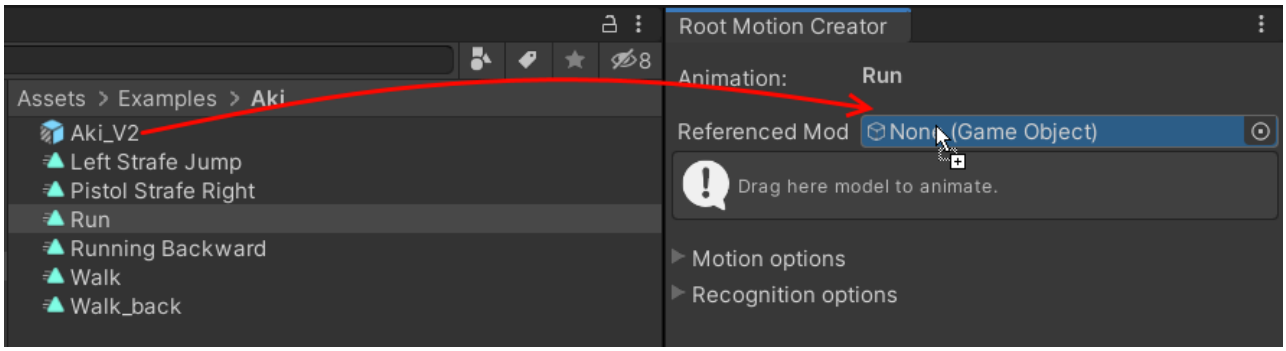
1. Import package
2. Select target animation and choose Create/Root Motion in popup menu:



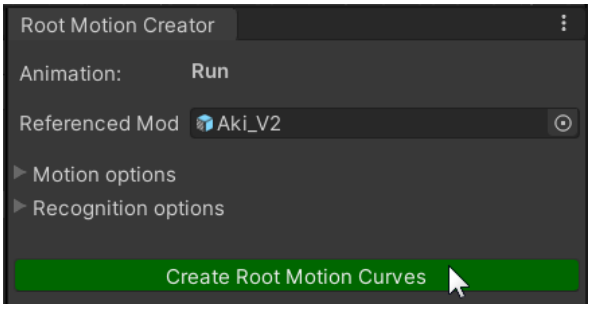
Alternatively you can open tool from main menu:



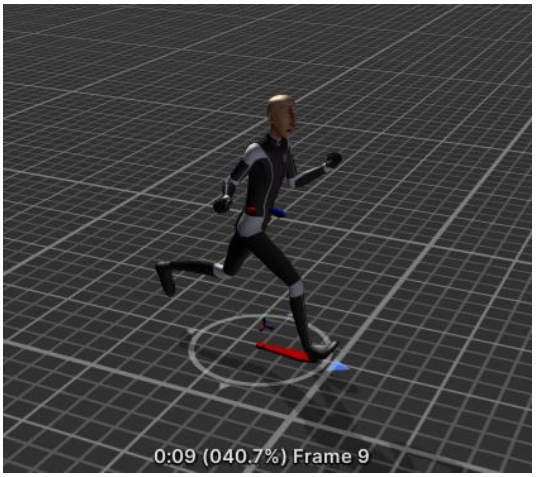
3. Drag animated model into field Referenced Model:



4. Press Create Root Motion Curves button:



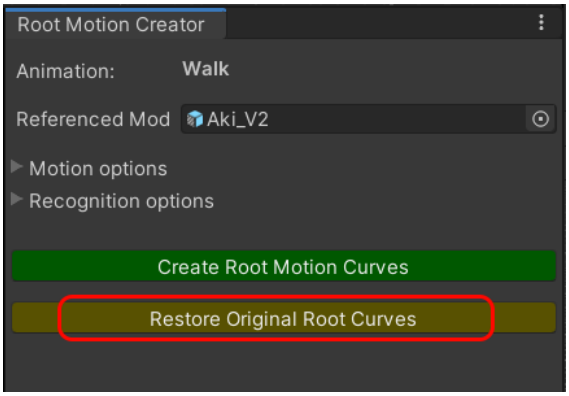
5. Enjoy with Root Motion animation :)



Advanced Options

The tool has several additional options.

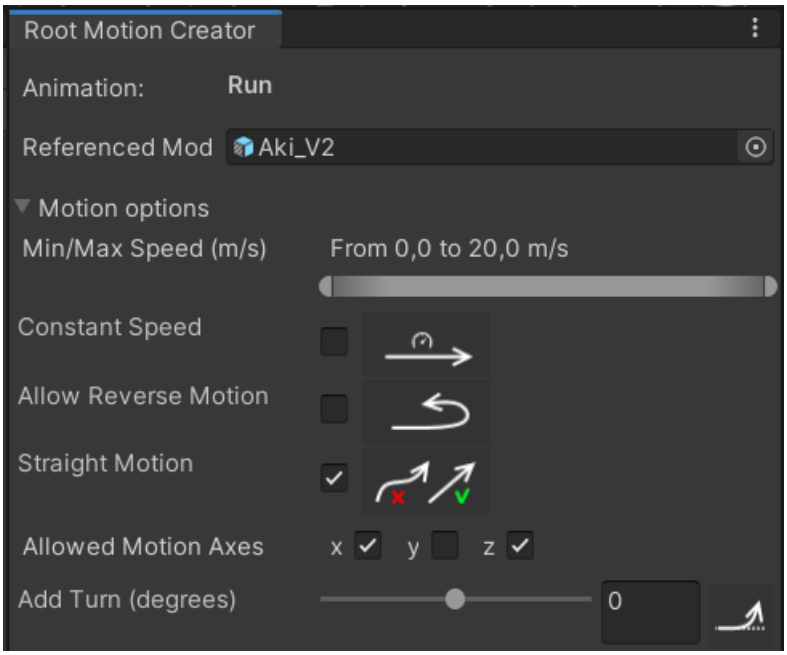
1. **Restoring of original animation**
   After you modified the animation, you can restore original root motion curves. Just press Restore Original Root Curves:



After this, the tool restores original curves of root motion (if they were presented).

2. **Motion options**

The tool has several options to adjust generated motion.



Min/Max Speed – defines minimal and maximal speed of motion (meters per second). This option sets the minimum/maximum movement speed in each animation frame. This is useful if the animation contains small jumps or phases with undefined movement. To avoid stupor of the model - increase the minimum speed.

Constant Speed. By default, the tool make motion based on foot motion. But sometimes it is useful for the character to move at a constant speed, without jerking. To do this, check the checkbox Constant Speed.

Allow Reverse Motion. Usually the animation moves the character in one direction. But there are animations with a turn, where the character abruptly changes the direction of movement. To allow such movement - check this box.

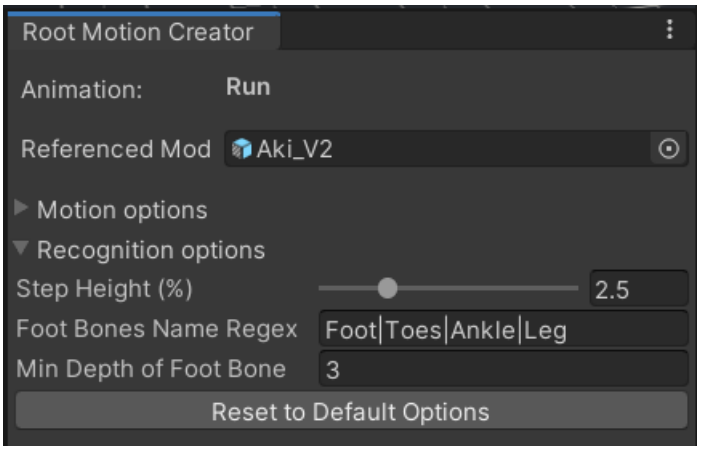
Straight Motion. Since the tool only predicts foot movement, the root movement can be curved or wavy. In order for the character to move strictly in a straight line - check this box.

Allowed Motion Axes. Check these boxes if you want to move strictly along the corresponding axis. For example check only Z if you want moving forward/backward. Check only X if you want strafe movement. By default, the tools moves model by both axes.

Add Turn. You can add arc motion to your animation. Just specify the angle you want to rotate during one animation cycle.

3. **Recognition options**

These settings help the tool correctly recognize the movement of the character.



Step Height %. This option sets the lift of the foot (as a percentage of body height) while walking. If the leg lift is higher than this value, such a movement is considered a jump.
Decreasing of this value make jumps faster. But too low a value can lead to foot slippage.
Also you need to increase Step Height if tool can't recognize motion and model still In-place movement.
Experiment with this setting for the most natural running or jumping movement possible.
Foot Bones Name Regex. This regex pattern helps the tool to find foot bones in transform hierarchy. You can change this setting if your model contains non-standard names of limbs. For example, you have octopus model where limbs have name Tentacle1, Tentacle2, and so on. In this case you can set pattern to "Tentacle", to help the tool find them.
This option is required only for Generic and Legacy animation. Humanoid animations are auto-recognized and ignore this setting.
Min Depth of Foot Bone. Another helper to find foots in hierarchy. The tool will finds foots only if they depth in hierarchy will more than this value.

Limitations

The Root Motion Creator is experimental tool. It just attempt to restore/predict root motion of original animation. It can't make it with 100% accuracy. In most cases animation will be recognized correctly. But some hard kinds of animation can't be recognized automatically. The tool **does not guarantee** correct root motion for any animation.

Also current version does not provide root motion for in-place jumps and movement by Y axis.

Legacy animations also are supported. But since they have not concept "root motion", the tool moves topmost hierarchy bone. Also the package includes script RootMotionForLegacyAnimation that helps to make loop motion of your legacy animated model.

Demo videos

Short demo: https://youtu.be/_XQFkkhct5k
Demo with different animations: https://youtu.be/motbedkluTo
Legacy animation demo: https://youtu.be/hjST_ciSm6g
Arc motion demo: https://youtu.be/xHv4_veY2Oo

Contacts

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