



Quickstart Guide

For Maya users

www.motorica.ai
info@motorica.ai

Welcome

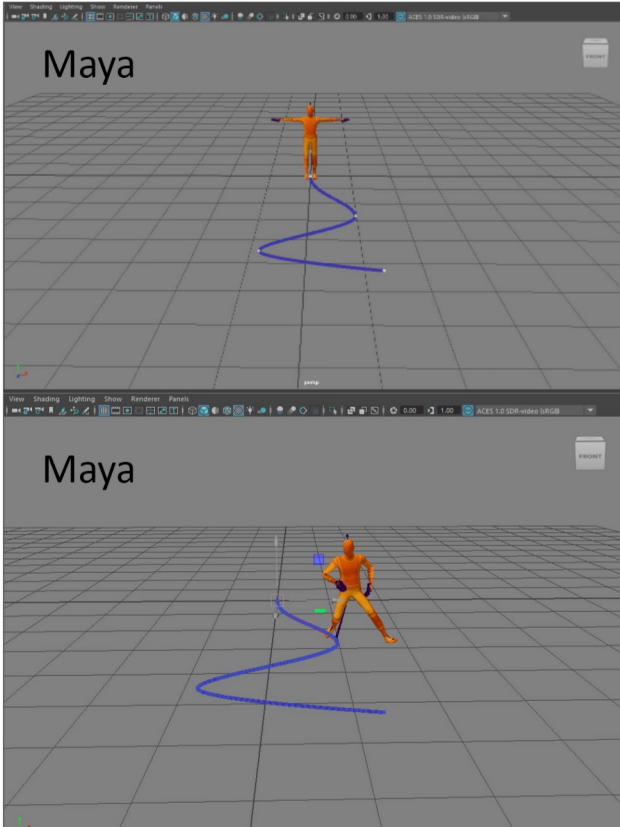
Welcome to Motorica MoGen, the ultimate tool for creating seamless locomotion in games, cinematics, VFX, and the Metaverse! Say goodbye to tedious animation work, and hello to effortless motion generation. With MoGen, you can easily configure preset root motion, mix styles, and hit "GENERATE" to bring your hero characters, NPCs, or crowds to life. Our team at Motorica is dedicated to developing cutting-edge technologies for advanced character animation, using generative deep learning to push the boundaries of what's possible. This guide will walk you through our pipeline for Autodesk Maya usage, but be sure to check out our guides for stand-alone and Blender for other pipelines. Get ready to start creating amazing motion with MoGen - happy generating!

- the Motorica team

3-step pipeline

1

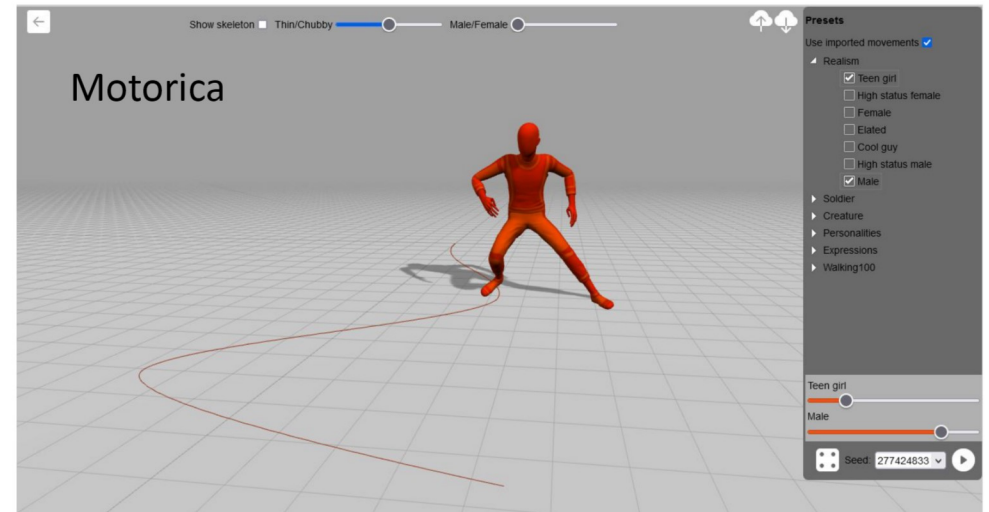
Keyframe root motion in Maya and export as fbx



Import the generated fbx back to Maya

2

Upload fbx to Motorica and generate animation. Export fbx.

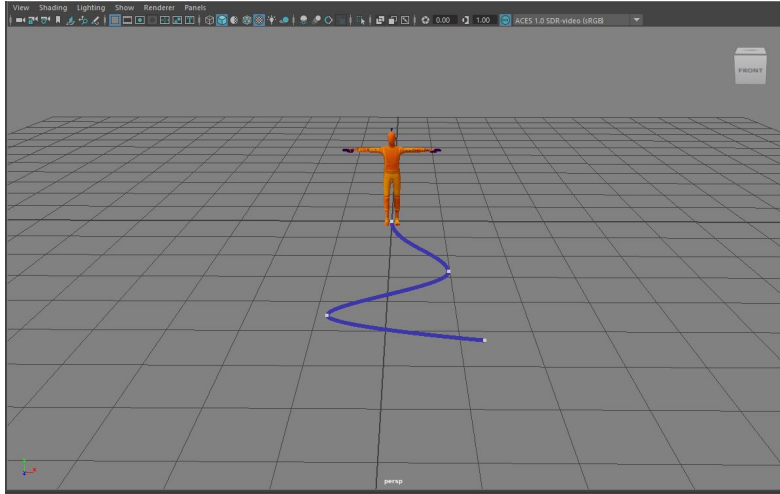


3

1

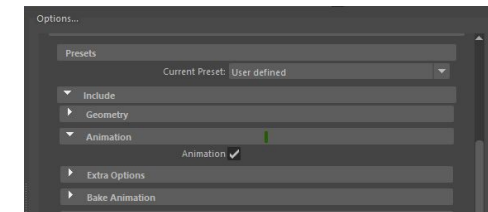
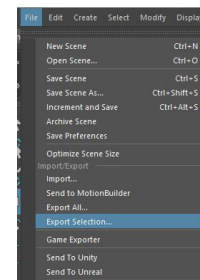
Keyframing in Maya

1. Download the Motorica character fbx and import it to Maya.
2. Select the "RootBone" node



3. Keyframe the RootBone so the character slides in a T-pose along the ground. Motorica supports a **maxium of 20s** animations. Note: Here we added an "editable motion trail" to visualize the character path

4. With RootBone selected, choose File->Export Selection and export as fbx. Make sure the "Include->Animation" is checked. The fbx now contains animation curves and can be uploaded to Motorica web.



5. Go to www.motorica.ai/mogen

MoGen web – overview

The image shows a screenshot of the MoGen web interface. The main area displays a 3D character in a running pose on a grid floor. The interface includes a top navigation bar with a user profile and a settings gear. A right-hand sidebar contains controls for generating and managing animations, including a 'Generate Animation' button, a seed input field, a 'Loop' checkbox, and a 'Style Library' with various character options. A bottom control bar features a play/pause button, a scrubbing bar, a playback speed selector, and icons for looping, camera movement, and character selection. Annotations with arrows point to these elements, and text boxes provide additional context.

visualization options
(does not affect generation)

Dropdown menu to logout or report issues

Generate new animation

Randomize
(new seed + generate)

Seed history

Switch between Motion and Styles panels

generation settings

play / pause

scrubbing bar

loop playback speed


run-in-place

move camera to follow character

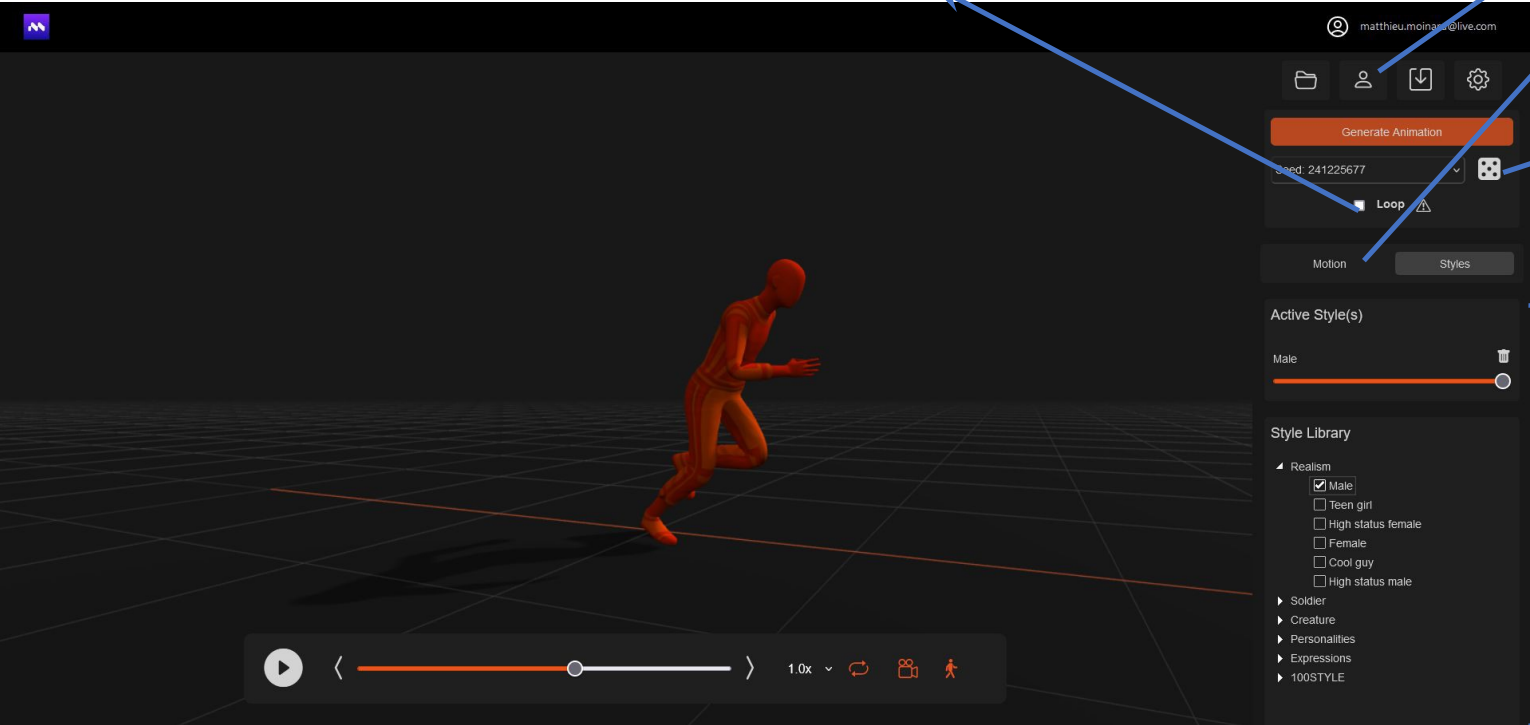
How to synthesize

#1 - Define motion
Option 1 Upload FBX file and import root motion
Option 2 User motion presets

#3 - Choose loopable
Select to generate a loopable animation

#4 - Generate
Click to generate animation
Hit  to change seed and generate another variant of the motion. Use seed history to go back to previous ones.

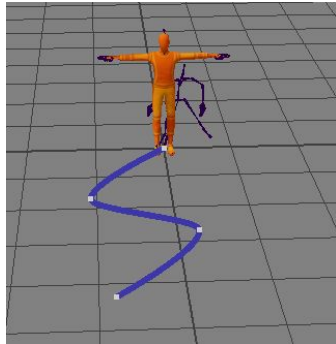
#2 - Enter style(s)
Choose one or combine two styles



3

Import and retarget in Maya

1. Import the generated fbx to Maya using "File->Import..."
2. In the import settings, import the animations to a separate namespace, e.g. "motorica_imported". This will add the animated skeleton to the scene.



3. Retarget to your desired character using HumanIK. This is easy as the imported character is allready characterized. Follow the Maya-guides on retargeting to transfer the animation to your target character.

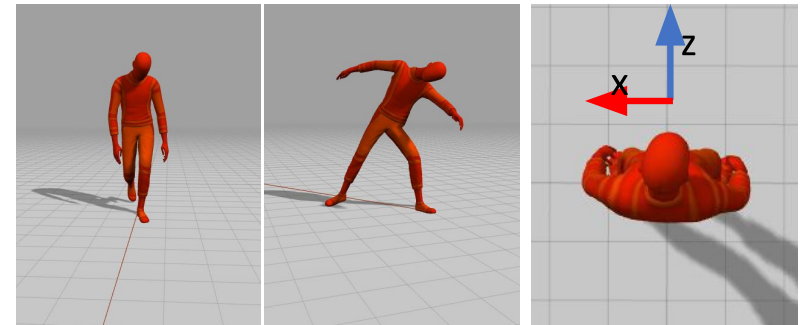
HumanIK

Target character

motorica_imported:Character

Tips-and-tricks

- Avoid style mixing in the beginning as it is hard to see what happens. Explore one style at a time until you are familiar with how they look.
- Some styles have limited running capabilities, which is somewhat tied to the style. It is for example very unusual in real life to see people running while texting, or old people sprinting in athlete pace. Use the controls wisely and do not expect too much of strange combinations.
- Some root motion speeds can be equally valid for a slow jog as for a fast walk. Hitting randomize several times may give you the motion you want.
- Some styles, e.g. Zombie, look better walking more sideways than straight ahead. This will generate limping as for a leg injury. Motorica uses the orientation of the hips to define what is forward. Experimenting with the local rotation may generate interesting variations.

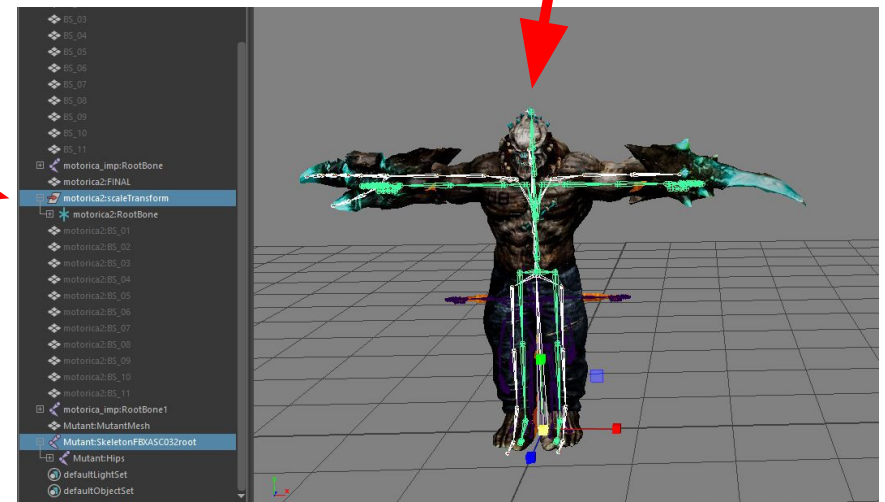


Advanced use

If your target character is different in size than the motorica character and you need exact control over the final character positions after retargeting, do the following.

1. Add a transform named "scale" as a parent to the Motorica RootBone and scale it so the Motorica character's hip-bone aligned with the target's.
2. Keyframe the RootBone as before.
3. **IMPORTANT:** export with the scale-transform selected.
4. Import and retarget animations as before. The retargeted motion should now match your target character.

Added scale transform named "scale"





Thank you!

Please join our [Discord](#) server and take part in the development of generative AI animation!

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