# Quickstart Guide

For Blender users

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 Blender usage, but be sure to check out our guides for stand-alone and Autodesk Maya for other pipelines. Get ready to start creating amazing motion with MoGen - happy generating!
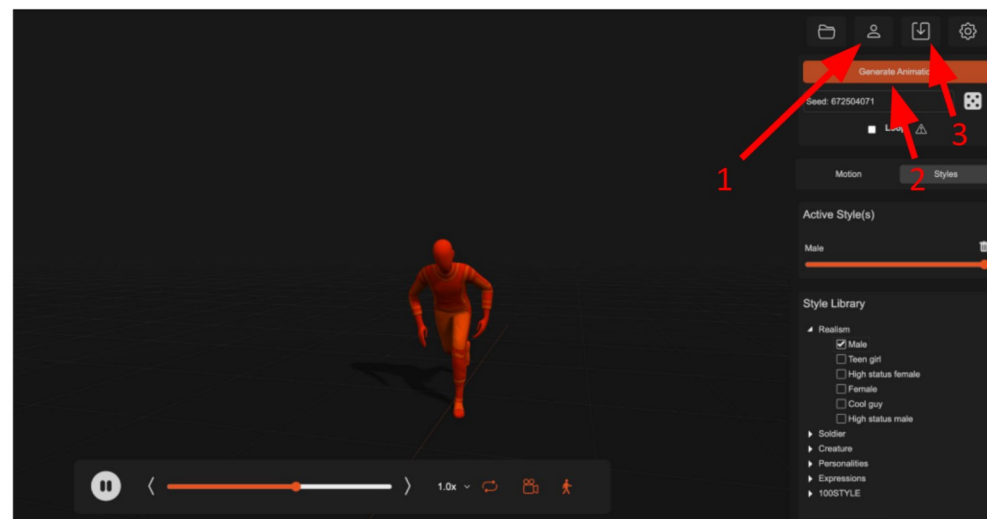

- the Motorica team

3-step pipeline overview

1

Keyframe root motion in Blender and export as fbx
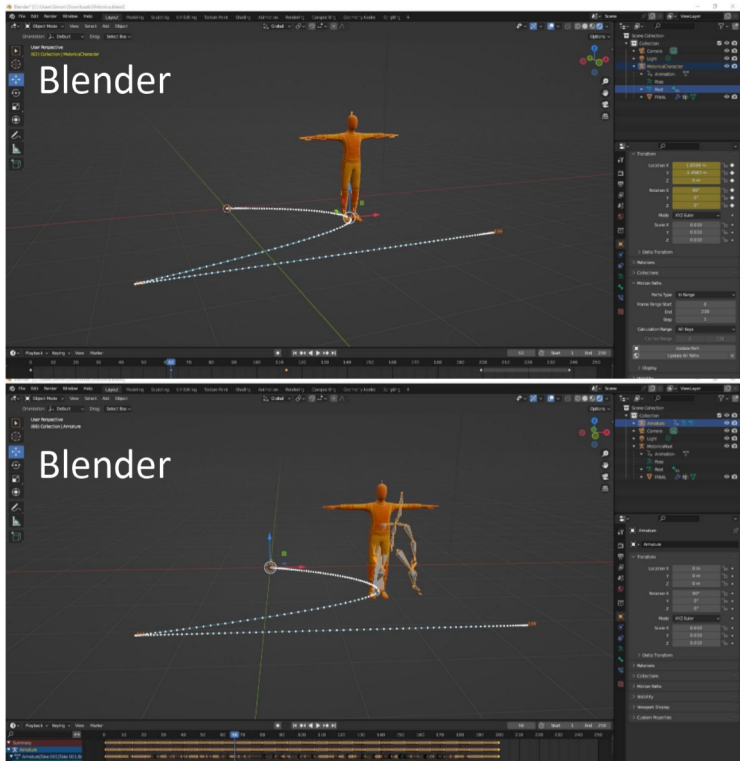
2

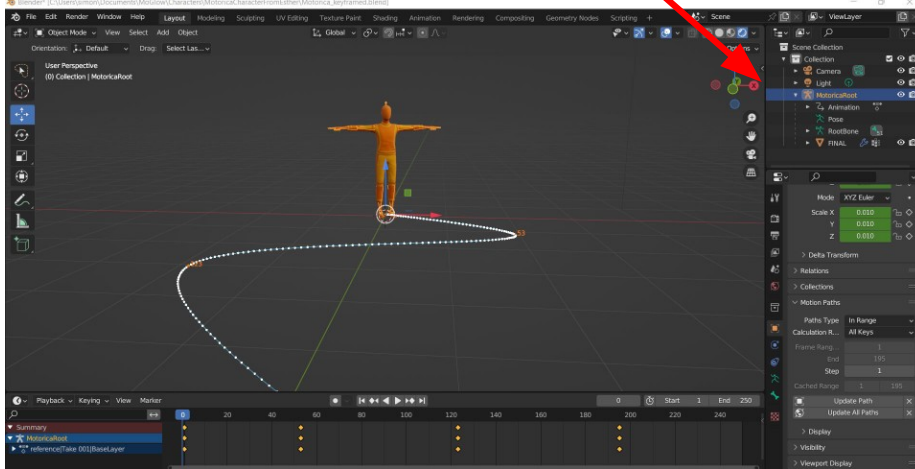Upload fbx to Motorica and generate animation. Export fbx.

3

Import the generated fbx back to Blender

1 Keyframing in Blender
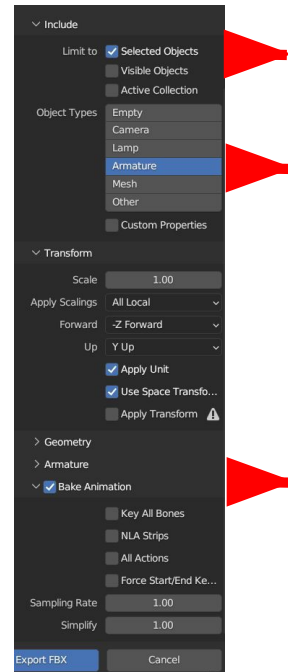
1. Download and open the Motorica.blend file.

3. Select the "MotoricaRoot" node and key-frame it so the character slides along the ground. (Here we added a "Motion Path" to visualize the character path)

4. Choose File->Export->Fbx. In the settings, check "Selected Objects", "Armature", "Bake animation" and un-check all underlying baking options.

5. Go to www.motorica.ai/mogen

MoGen web – overview

Dropdown menu to logout or report issues

Generate new animation

Randomize (new seed + generate)

Seed history

Switch between Motion and Styles panels

generation settings

visualization options (does not affect generation)

play / pause

scrubbing bar

playback speed

loop

move camera to follow character

run-in-place

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 [dice] to change seed and generate another variant of the motion. Use seed history to go back to previous ones.
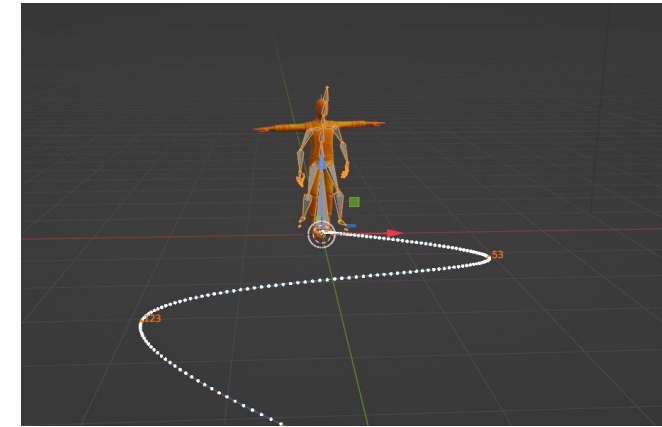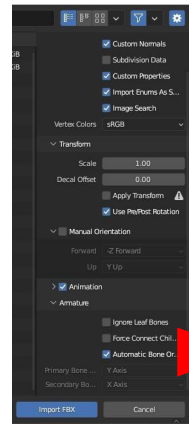
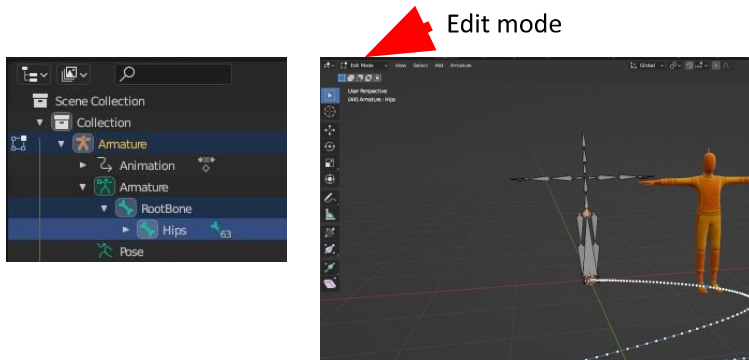**#2 - Enter style(s)**
Choose one or combine two styles
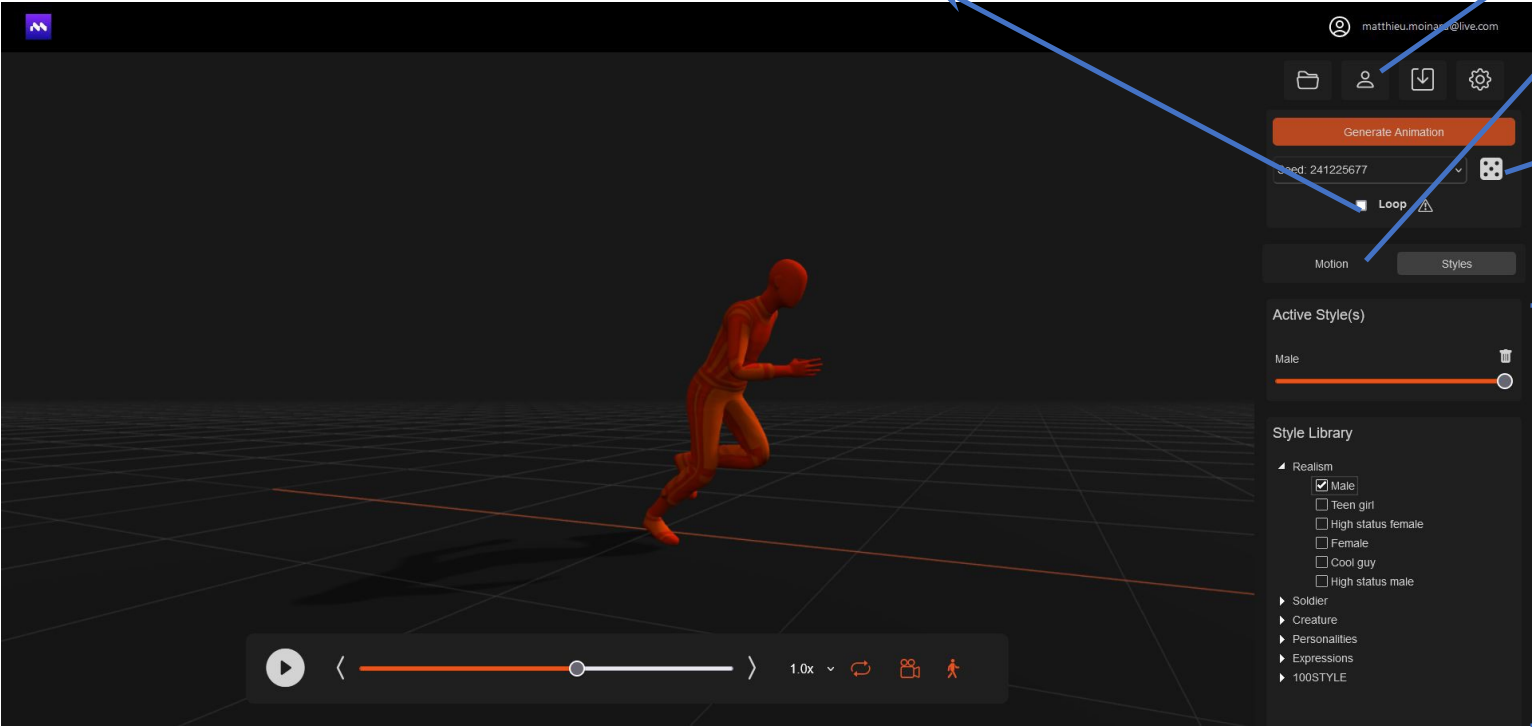
③ Import and retarget in Blender

1. Import the fbx to Blender. Choose "File->Import->Fbx import" and select the fbx from motorica. Import using "Automatic bone orientation"
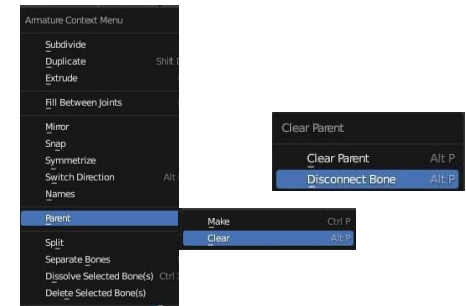
2. The animated skeleton appears in scene, but we need to disconnect the hips from the root bone to get correct hip translation:

Edit mode

3. Select "RootBone" and "Hips" from the imported Armature and go into Edit mode.

4. Right-Click and choose "clear parent" + "Disconnect Bone"

5. Retarget the animation to your desired character using a retargeting tool. We have used the Rokoko plugin with good results.

Tips-and-tricks

- Avoid style mixing in the beginning as it is hard do 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.

- Certain 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.
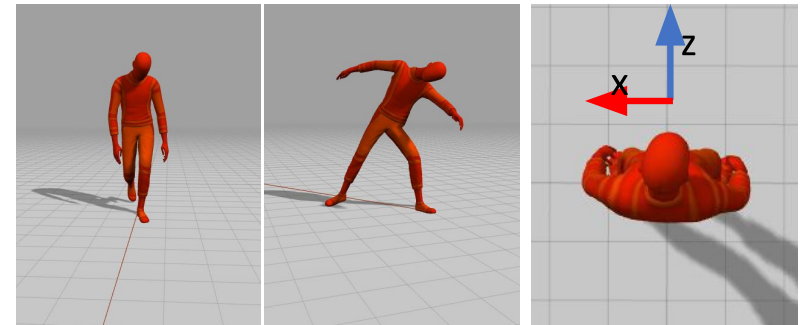
Thank you!

Please join our <u>Discord</u> server and take part in the development of generative AI animation!

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