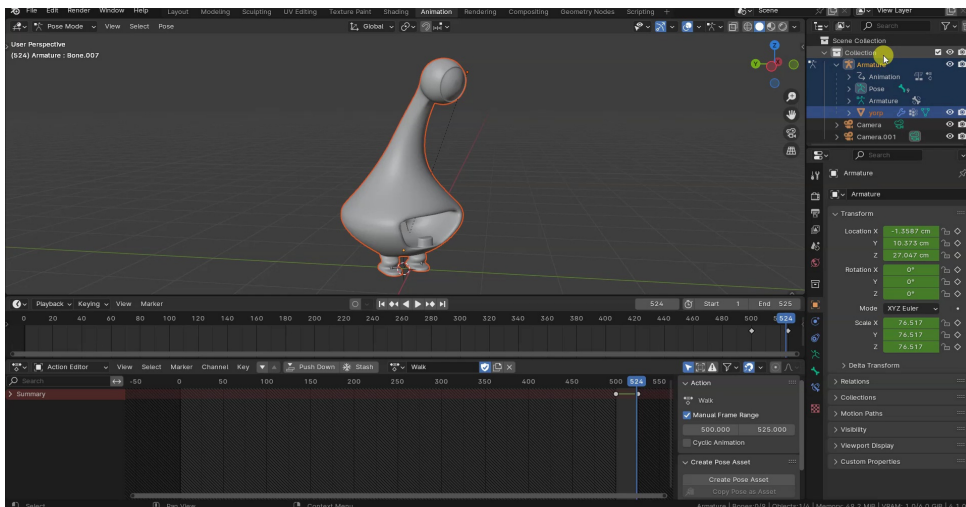


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Hello everyone!

In Blender, it's possible to define Actions, which are groups of frames and keyframes of animation that we can name and easily retrieve and use, even in other software.

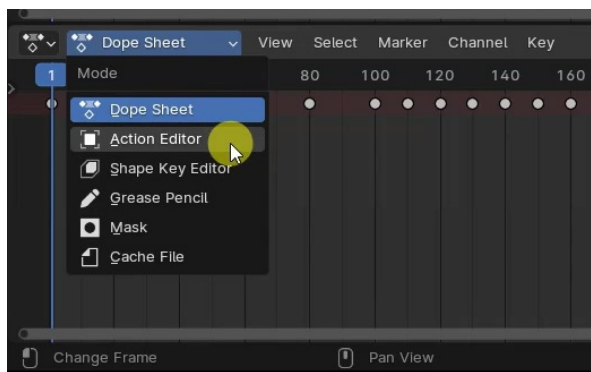
Actions are very useful, for example, for defining animation cycles for video game characters, such as walking, jumping, or other movements.

This is a basic tutorial made with Blender 4.1, where we will see how to define a character's Actions and export them, along with the 3D model, in FBX format, and then import everything into Unity 6.

In the blend file I'm using, the character is based on a Yorp from the video game *Commander Keen* and is equipped with several animations defined within the file; for example, from frame 1 to frame 80, the character looks around, while from frame 500 to frame 525, it walks, and so on.



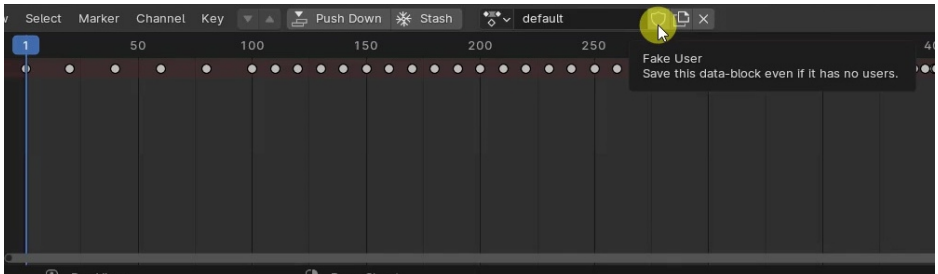
To create Actions for these groups of frames, we first need to open a Dope Sheet editor. Inside this editor, change the mode from *Dope Sheet* to *Action*.



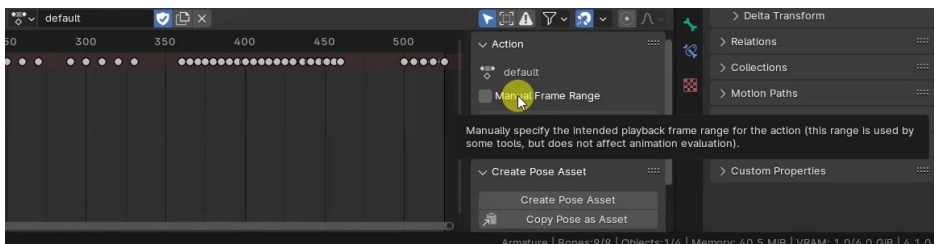
In the Action selector, there should be a default Action. We can rename it to effectively define our first Action.

When creating an Action, it's a good idea to always press the button with the shield icon, to ensure that Blender saves the Action in the blend file even if it isn't

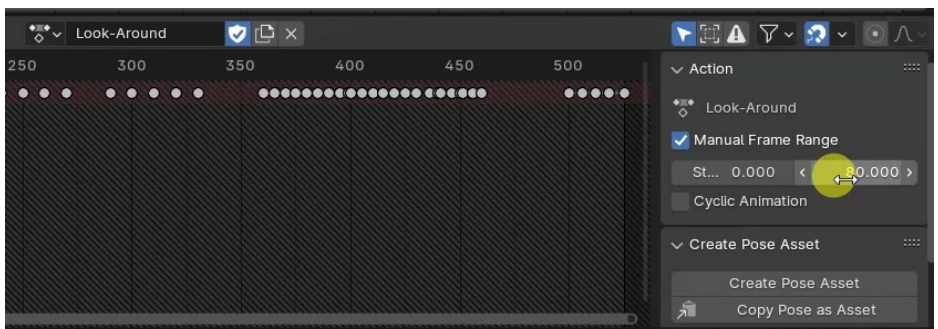
used by any object. This will allow us to save the Action in the file when exiting the program, even if we mistakenly delete the link between an Action and the objects in the scene.



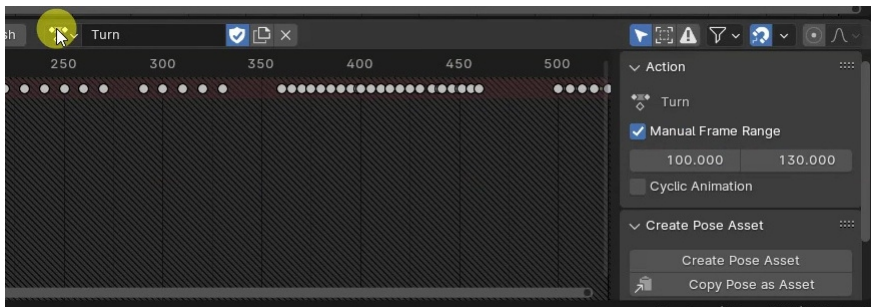
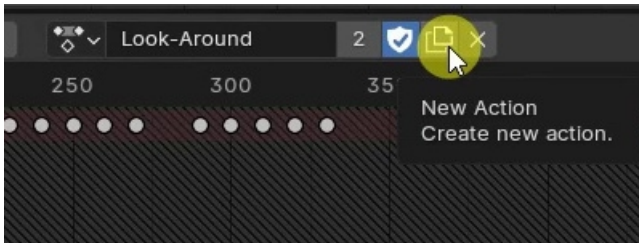
The frame range of the current Action is simply defined by opening the Sidebar of the Action Editor, using the N key, and then manually setting the frame range of the Action in the Action section of the Sidebar.



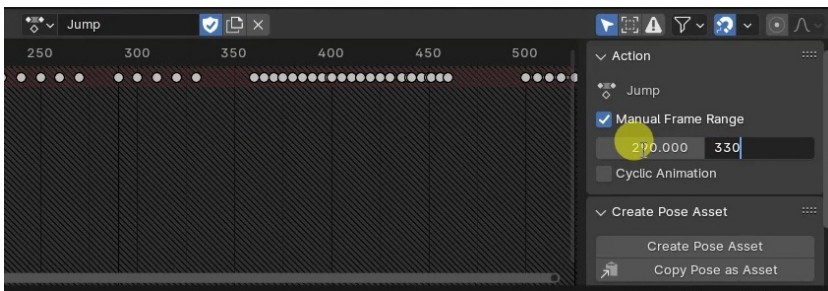
For example, let's rename the current Action to *Look Around*, ensure the shield icon is selected, and set the frame range between 0 and 80.



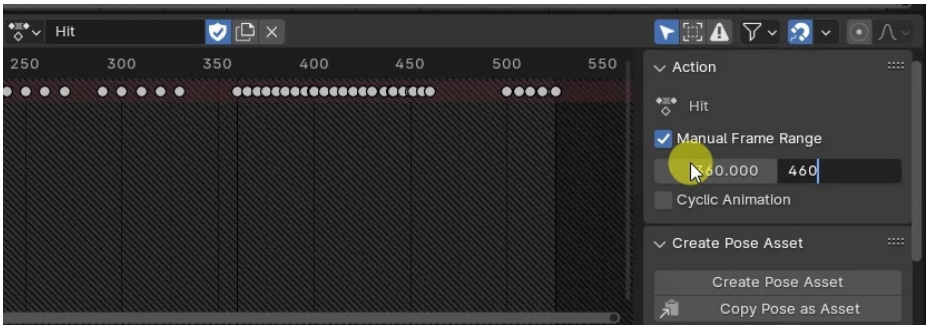
To create the second Action, click on the duplicate icon of the current Action, then click on the shield icon, rename the new Action, and proceed to define its frame range. For example, I define the Action called *Turn* between frames 100 and 130.



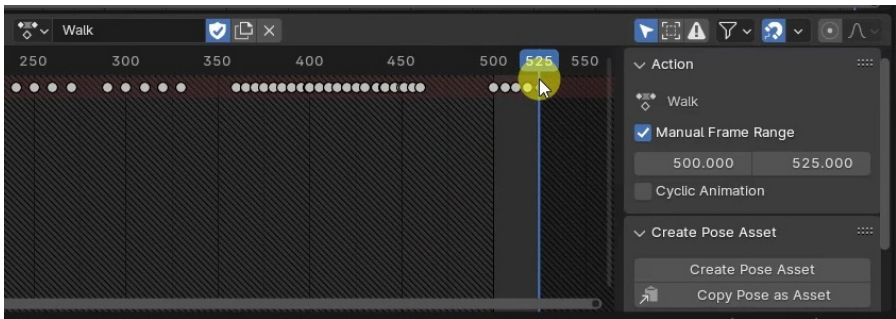
I then proceed to define the other Actions to be exported with the file, such as *Jump* from frame 290 to frame 330.



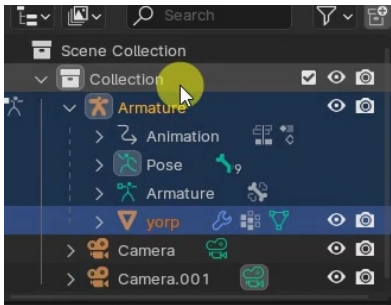
Hit will take place between frames 360 and 460; in this case, the Yorpp would remain stunned for a few seconds when Commander Keen jumped on it.

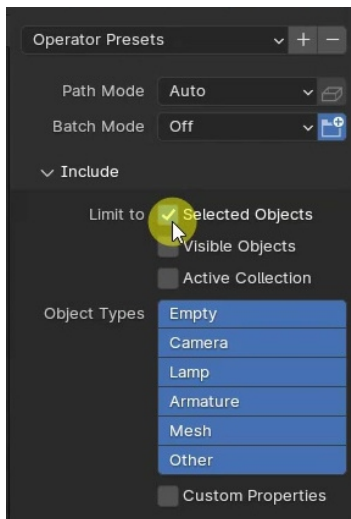


Finally, the *Walk* Action occurs between frames 500 and 525; actually, at frame 525, the Yorp returns to its idle position, but in Unity, it's possible to remove some frames, both at the beginning and at the end of the clip defined by the Action, to obtain a seamless loop of the walking animation.

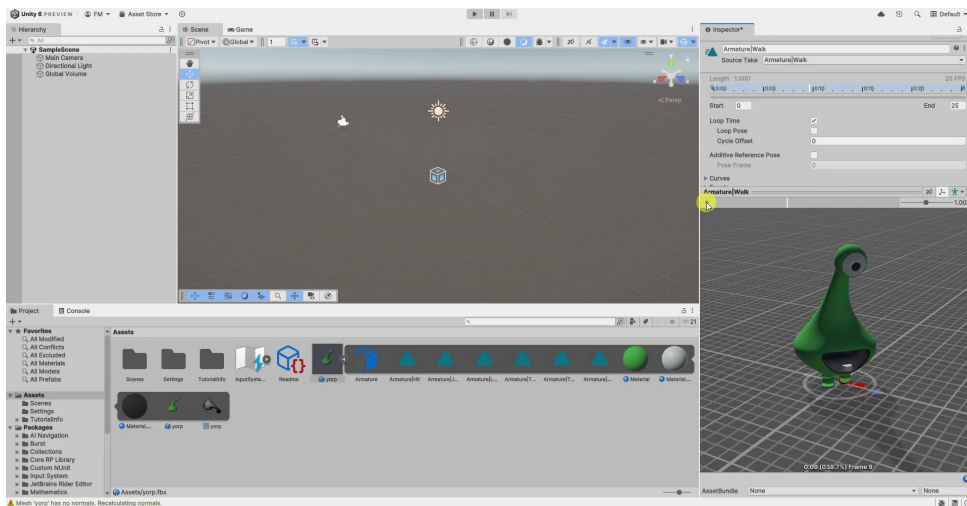


Okay, now we can save the blend file and export the 3D model and Armature into an FBX file. To avoid saving other objects in the scene into the file, I select only the Armature objects and the Yorp 3D model in the Outliner before proceeding with the FBX export, where I'll specify *Limit to Selected Objects*.





The 3D model can then be imported into Unity. In the *Animation* section of the import settings, you will find the various Actions, identified as animation clips, which can then be used to animate the different movements of our character in the Unity project.



That's all for this tutorial! See you soon!

* * *