How to Use Kinect MoCap Animator

1. (Kinect-v2 & v1) Download and install the Kinect v2 SDK, as described in the next section. For Kinect-v1, see the installation instruction for Kinect-v1 (aka Kinect-for-Xbox-360) below.
2. (Kinect-v2) If you want to use the Kinect-v2 speech recognition, download and install the Speech Platform Runtime or SDK, as well as the needed language packs, as described in the next section.
3. (Nuitrack or Orbbec) If you want to work with Nuitrack body tracking SDK, look at this tip. If you want to work with Orbbec Astra or Astra-Pro sensors via OpenNI2, look at this tip.
4. Import this package into new Unity project.
5. Open 'File / Build settings' and switch to 'PC, Mac & Linux Standalone', Target platform: 'Windows'.
6. Make sure that Direct3D11 is the first option in the 'Auto Graphics API for Windows'-list setting, in 'Player Settings / Other Settings / Rendering'.
7. Open and run the Assets/KinectMocapAnimator-scene in Unity editor.
8. As you can see, there are two models in the scene. The left one, called LiveReplay(Clone) in Hierarchy, uses the KinectManager & AvatarController-components to capture and reproduce the user movements.
9. The right one, called Recorded(Clone) in Hierarchy, plays the currently recorded animation. When you run the scene for a first time it will run in place, playing a pre-recorded running animation.
10. Say 'Record' or 'Start'-voice commands, to start recording the captured user motion into fbx animation clip. Alternatively, press the Space key to start the recording, if for instance speech recognition is not available.
11. Say 'Stop' or 'Halt', to stop recording, or press the Space key again. The recorded animation clip will be saved into the specified fbx-file (see the 'Save file path' and 'Animation name'-settings of the KinectFbxRecorder-component of KinectController-game object).
12. After the animation gets saved, you will see the right model playing the newly recorded animation.
13. Enabling the 'Load save-file if exists'-setting of KinectFbxRecorder will allow saving more than one animation clip into the same fbx-file. The recorded animations must have different names.
14. The recorded animation is saved in the KinectMocapFbx/Models/Recorded.fbx-file. You may edit it in external 3d-modelling software, or use it in the Unity animation system (Mecanim).
15. Don't forget to set the rig of the imported model to Humanoid. This will allow retargeting of the recorded animations to the other humanoid models in your project.
16. For more information, see the package online documentation: https://ratemt.com/k2mocap/

Installation of Kinect-v2 SDK

1. Download the Kinect for Windows SDK 2.0. Here is the download page: http://www.microsoft.com/en-us/download/details.aspx?id=44561
2. Run the installer. Installation of Kinect SDK 2.0 is pretty straightforward.
3. Connect the Kinect-v2 sensor. The needed drivers will be installed automatically.
4. If you want to use the Kinect-v2 speech recognition, download and install the MS Speech Platform Runtime v11 (or Speech Platform SDK v11). Install both x86 and x64-packages, to be on the safe side. Here is the download page: http://www.microsoft.com/en-us/download/details.aspx?id=27225
5. For the Kinect-v2 speech recognition, you also need to download and install the respective language pack. Here is the download page: https://www.microsoft.com/en-us/download/details.aspx?id=43662

Installation of Kinect-v1 SDK

1. Download the Kinect for Windows SDK 1.8. Here is the download page: https://www.microsoft.com/en-us/download/details.aspx?id=40278
2. Run the installer. Installation of Kinect SDK 1.8 (or Kinect Runtime 1.8) is pretty straightforward.
3. Connect the Kinect-v1 (aka Kinect-for-Xbox-360) sensor. The needed drivers will load automatically.
4. Optionally install 'Kinect for Windows Developer Toolkit', if you want to try Kinect SDK's own basic samples. Here is the download link: https://www.microsoft.com/en-us/download/details.aspx?id=40278
5. If you use Kinect-v1, but have installed the Kinect-v2 SDK as well, please look at this tip: http://rfilkov.com/2015/01/25/kinect-v2-tips-tricks-examples/#t21

More Information, Support and Feedback

Online Documentation: https://ratemt.com/k2mocap/
Web: https://rfilkov.com/2015/12/26/kinect-v2-mocap-animator/
Contact: http://rfilkov.com/about/#contact (please mention your invoice number)
Twitter: https://twitter.com/roumenf