

VIRDYN MateHuman Quick Configuration Instructions

Unreal Engine version: 4.26+

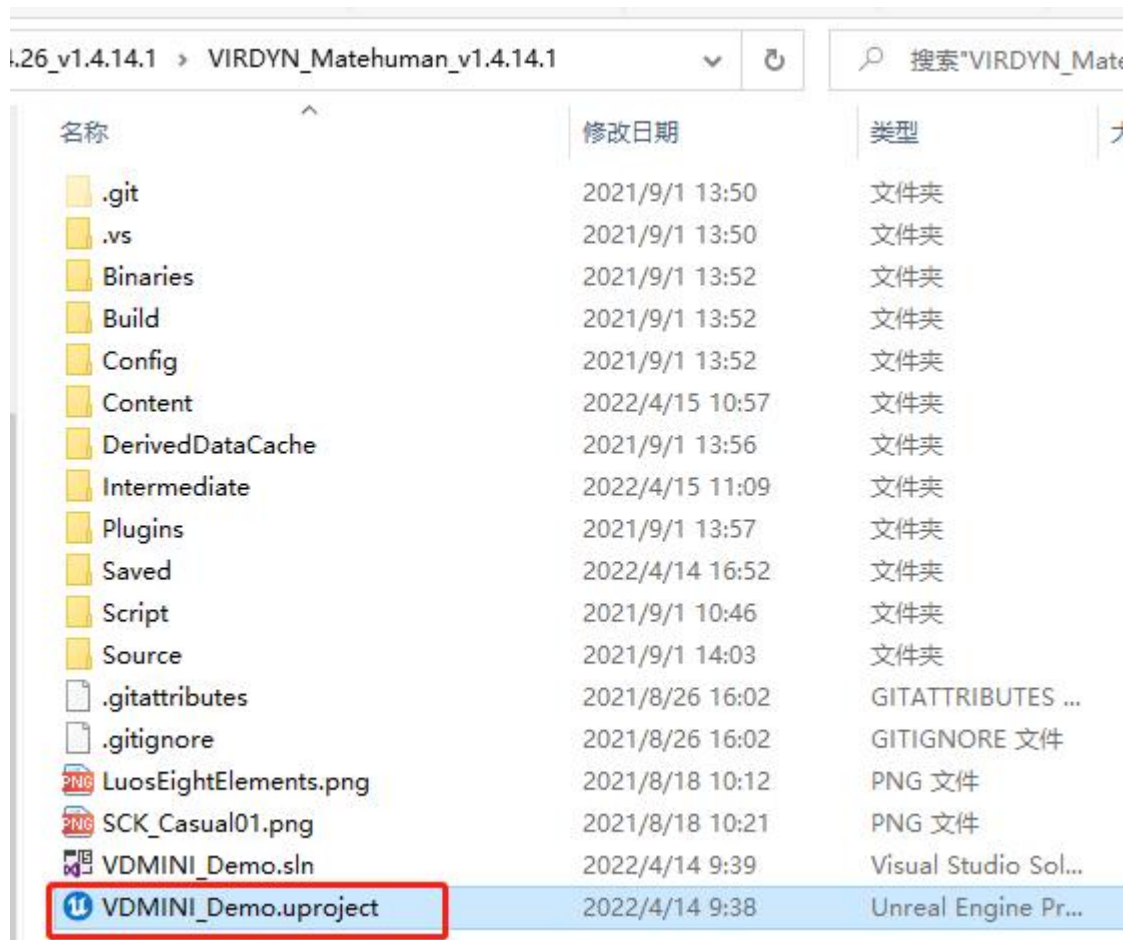
1. Description:

This document provides a scenario where you import a new MetaHuman model and then build on the existing model. Omar's blueprints are quickly migrated to complete the drive.

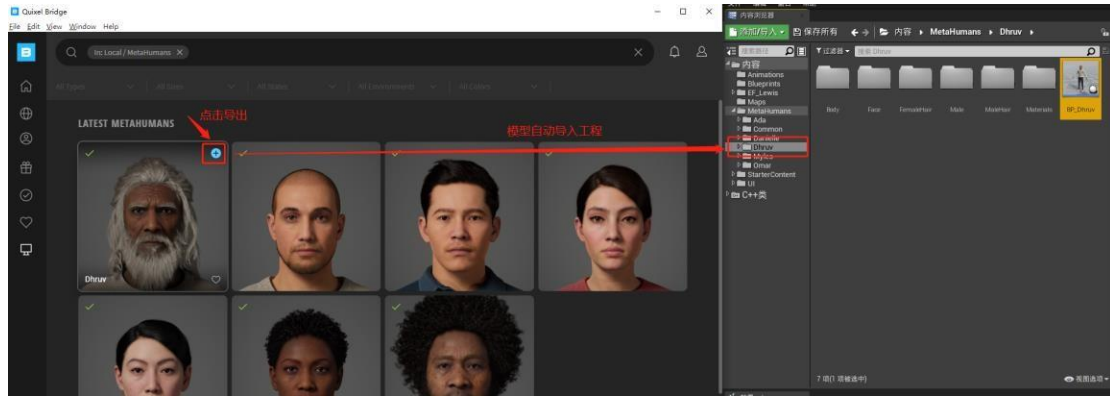
2. Quick configuration with model Dhruv as an example

Importing Models

1) Open the project "VDMINI_Demo.uproject"



2) Importing a model from Quixel Bridge into a project

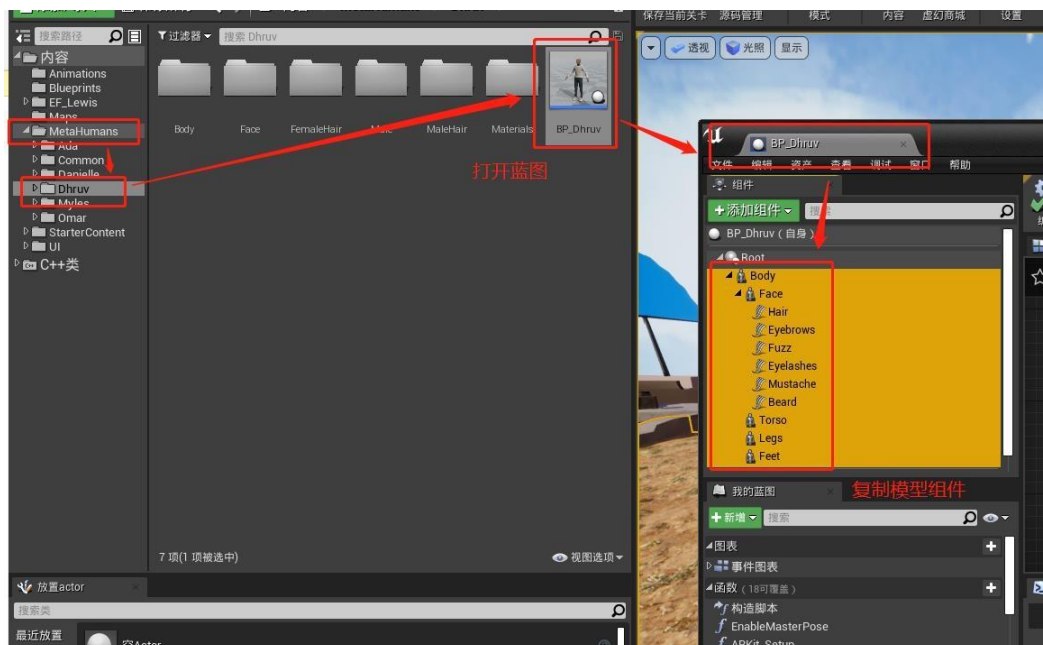


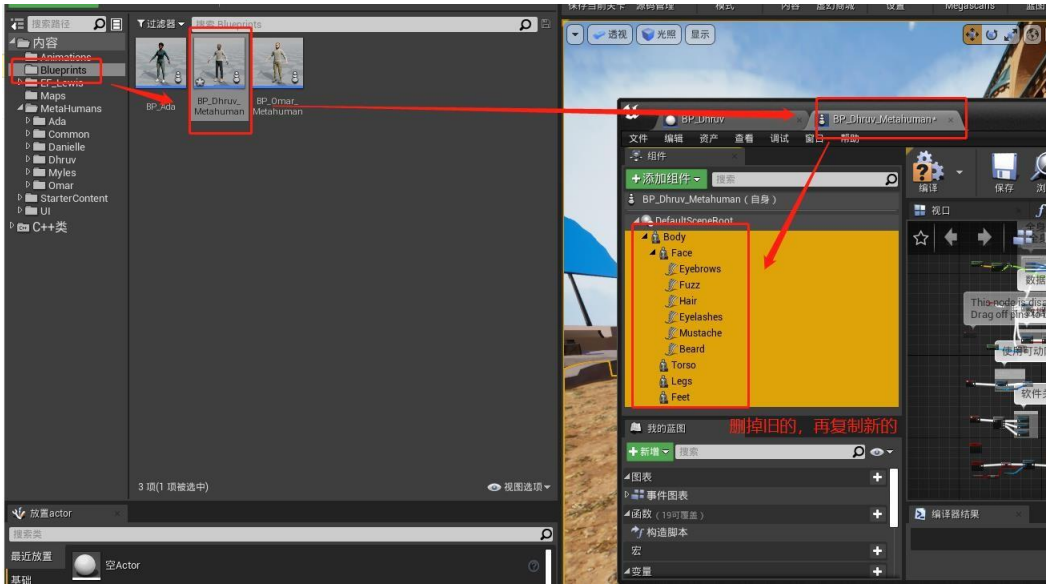
Configuring BP Blueprints

1) Copy the blueprint Blueprints\BP_Omar_Metahuman and rename it as "BP_Dhruv_Metahuman", do not rename it with MetaHumans\Dhruv\BP_Dhruv, otherwise it will cause the object call error when indexing the blueprint variables later, resulting in the failure of face capture configuration.

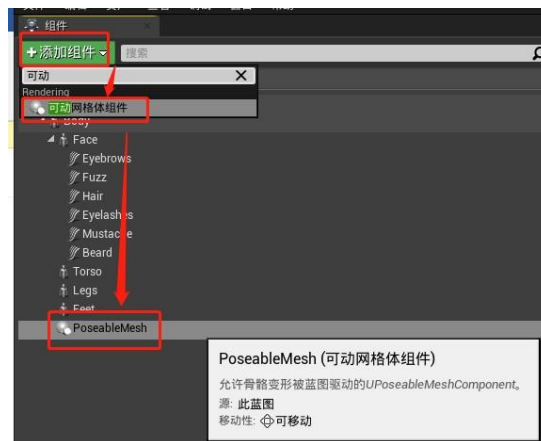


2) Open the blueprint MetaHumans\Dhruv\BP_Dhruv and copy all components from the blueprint to the new blueprint BP_Dhruv_Metahuman.

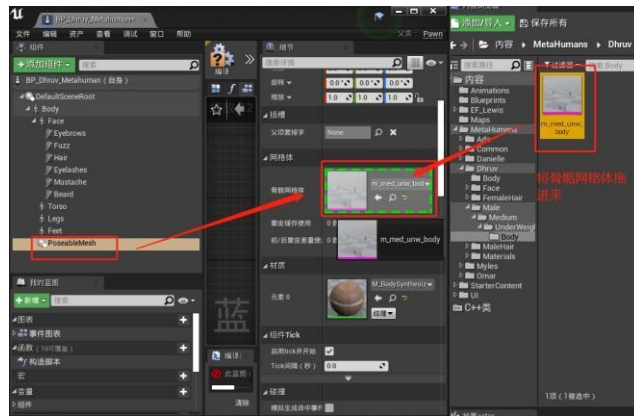
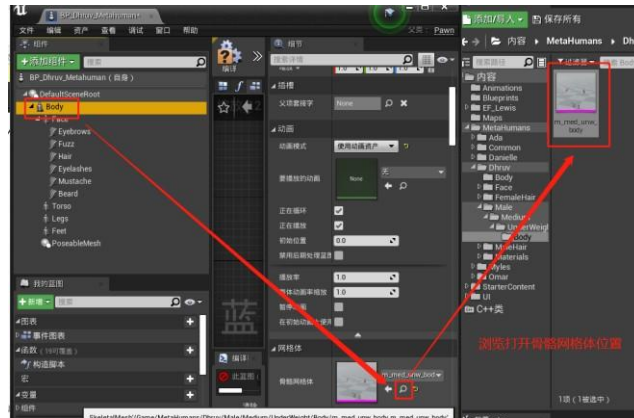




3)Blueprint BP_Dhruv_Metahuman to create the movable mesh component PoseableMesh.



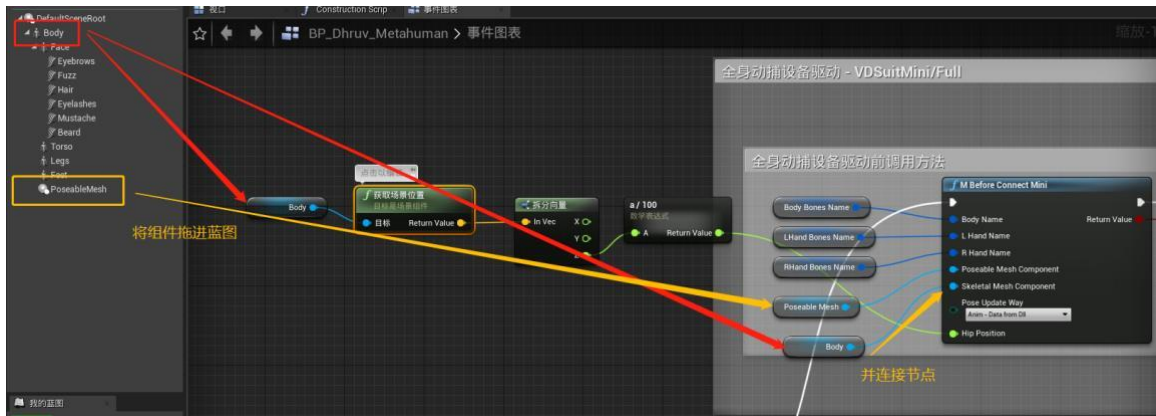
4)Places the skeletal mesh of the Body component on the skeletal mesh of the PoseableMesh component.



5) Clears the skeletal mesh of the Body component.



6) Configure the new component Body, PoseableMesh into the event blueprint, connect the blueprint events, and finally "compile" the blueprint.



Configure the animation blueprint

1) Copy the animation blueprint

Animations\MetaHumanAnimBlueprint, renaming it

"DhruvAnimBlueprint", which is responsible for driving the Body component.

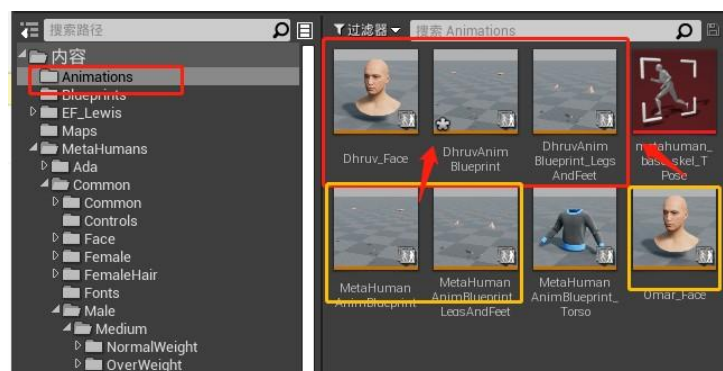
Copy the animation blueprint Animations\

MetaHumanAnimBlueprint_LegsAndFeet, rename it to

"DhruvAnimBlueprint_LegsAndFeet", which is responsible for the Legs, Feet components. driver.

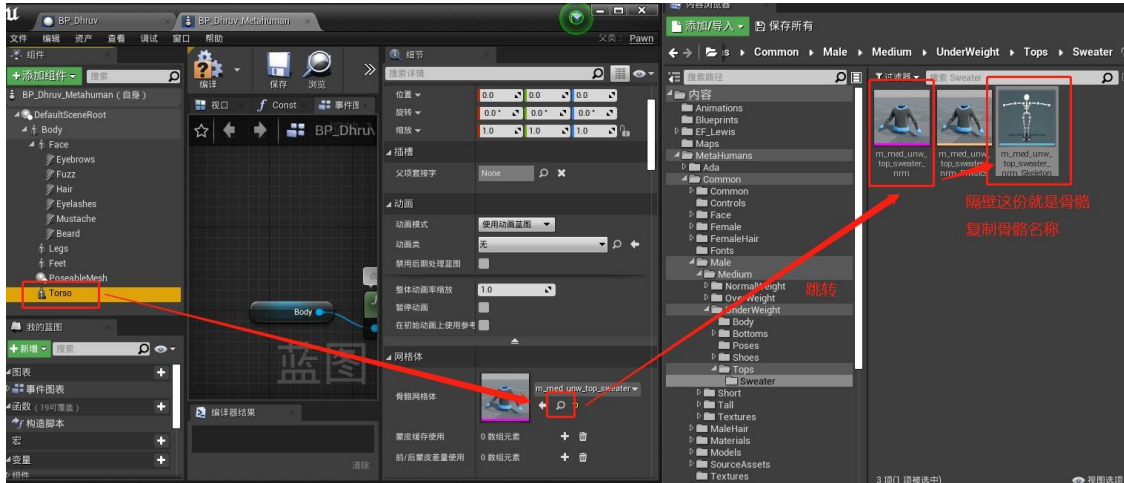
Copy AnimationsBlueprint Animations\ Omar_Face, renamed to

"Dhruv_Face", which is responsible for driving the Face component.

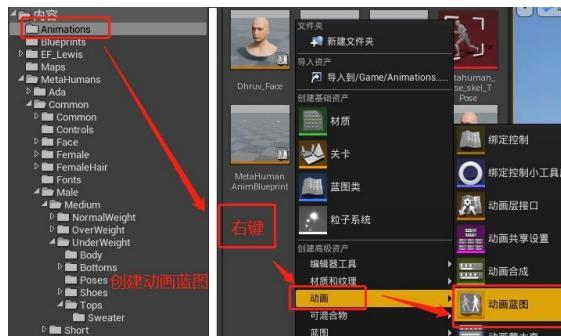


2) Because Torso is an independent skeleton, not a shared skeleton with Body, you need to create a new animation blueprint.

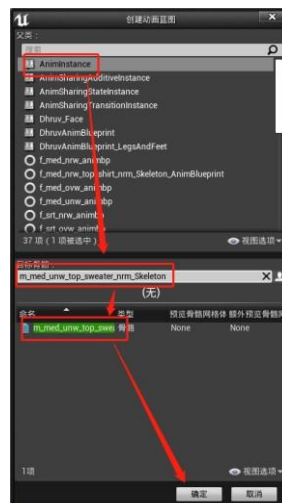
Open the blueprint BP_Dhruv_Metahuman to locate the Torso bones, MetaHumans/Common/Male/Medium/UnderWeight/Tops/Sweater/m_med_unw_top_sweater_nrm_Skeleton, get the skeleton name "m_med_unw_top_sweater_nrm_Skeleton"



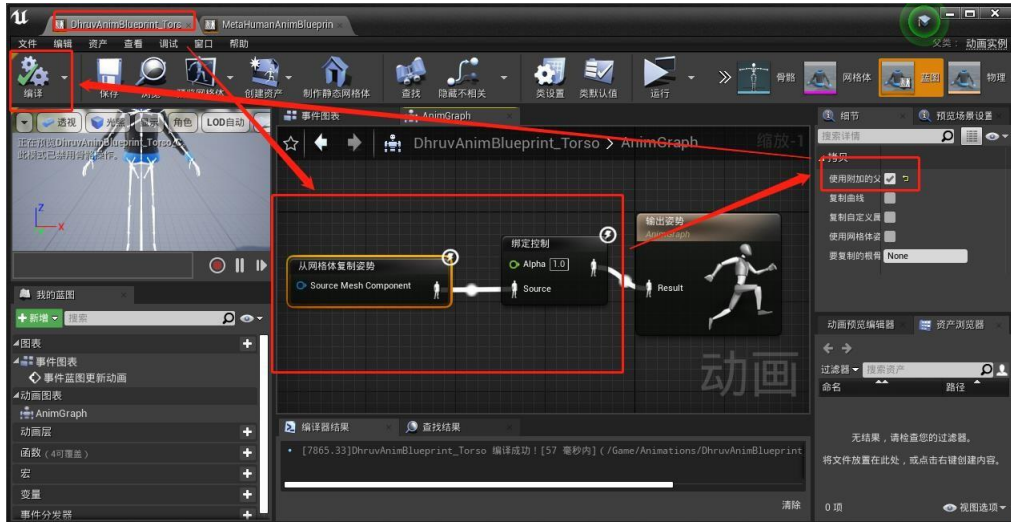
Create animation blueprint



Select the Torso counterpart skeleton for the target skeleton and name it "DhruvAnimBlueprint_Torso"

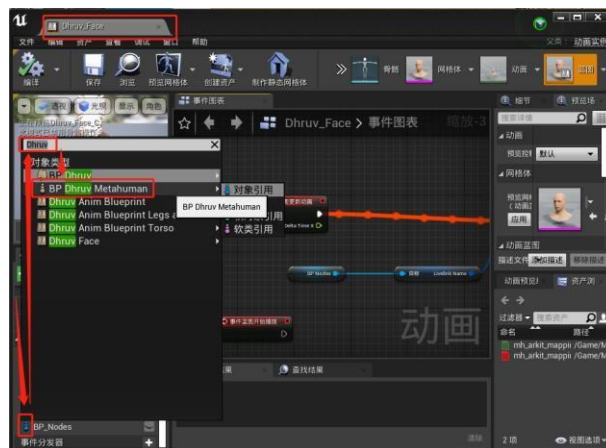


Open the blueprint "DhruvAnimBlueprint_Torso", copy the blueprint "MetaHumanAnimBlueprint_Torso" node "Copy pose from mesh" into the blueprint, connect and compile.



3) Configuration animation blueprint Dhruv_Face.

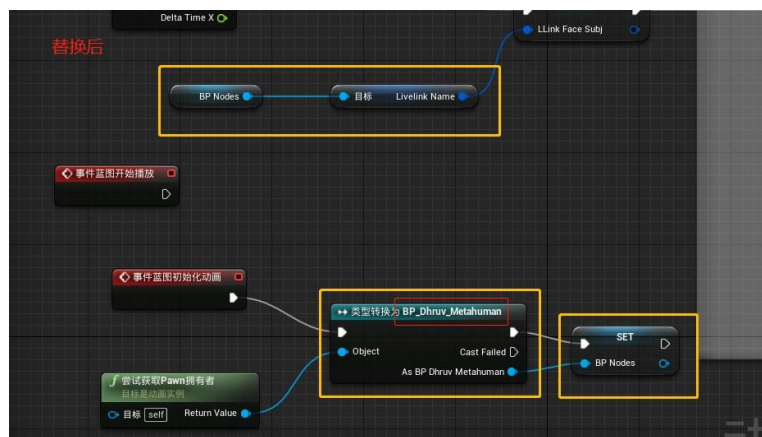
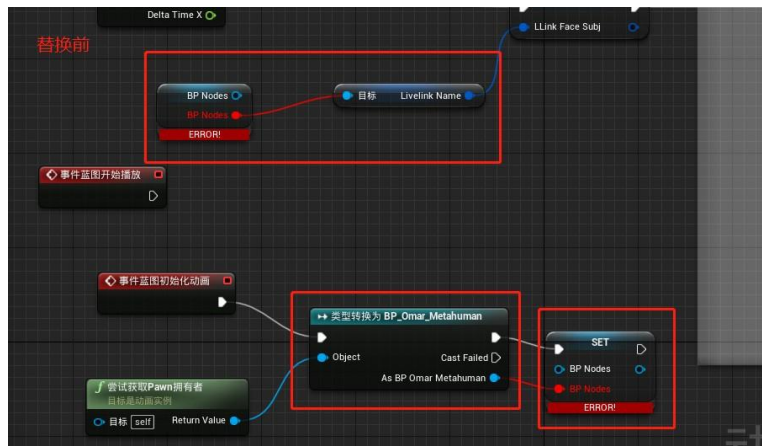
Open Dhruv_Face and change the parent class of the variable BP_Nodes to the blueprint class "BP_Dhruv_Metahuman" of the current digital human model.



After modifying the parent class, click on "Modify variable type" in the pop-up prompt.



Replace the blueprint node and finally compile, illustrated by

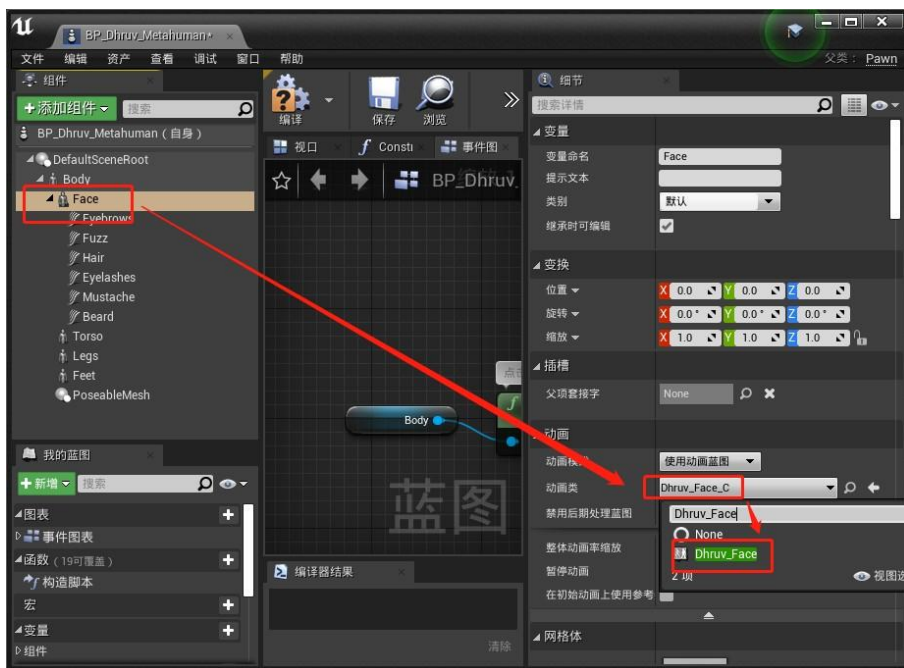


Open the blueprint class BP_Dhruv_Metahuman, configure the component animation blueprint, and finally save the compilation

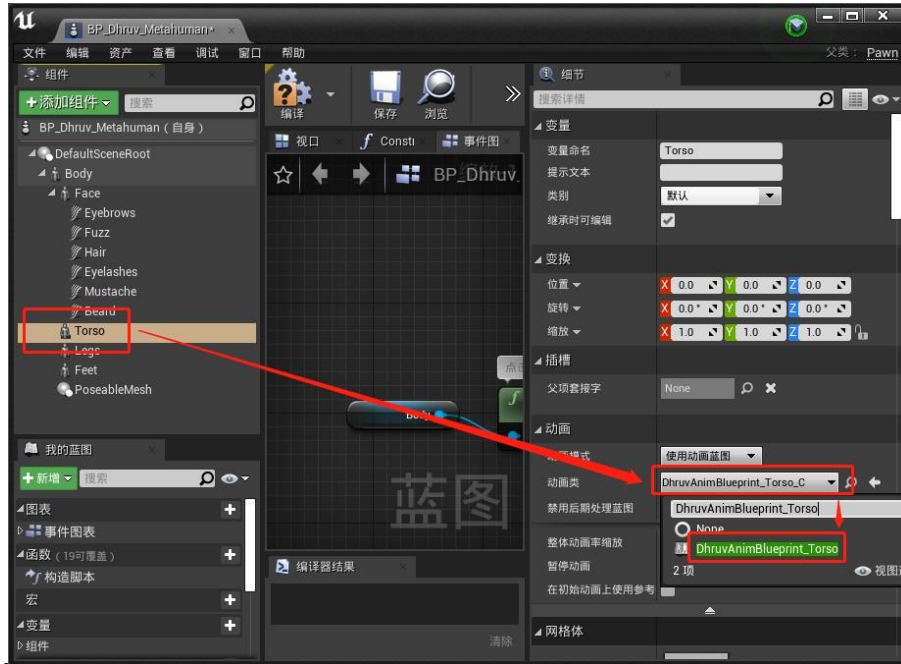
Body: Change the animation mode of the Body component to "Use Animated Blueprint" and select "DhruvAnimBlueprint" as the animation class.



Face: The animation class "Dhruv_Face" is selected.



Torso: The animation class "DhruvAnimBlueprint_Torso" is Selected

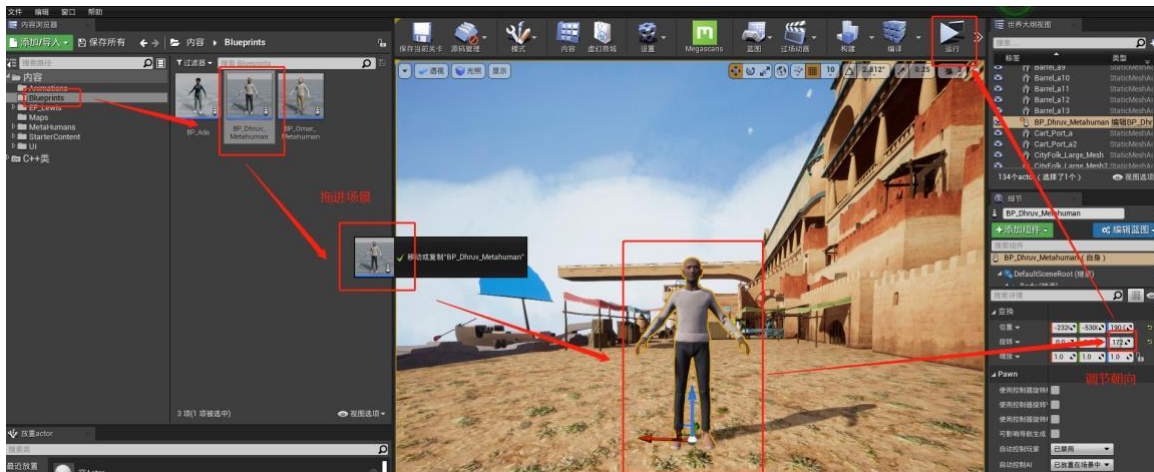


Legs, Feet: Animation class selection “DhruvAnimBlueprint_LegsAndFeet”.



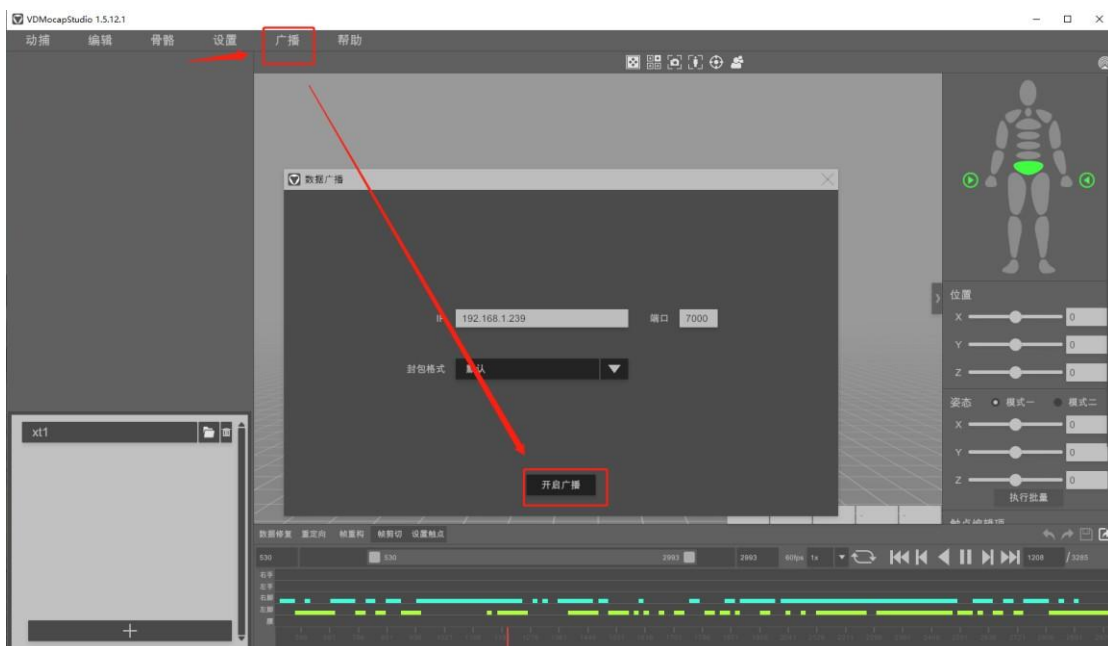
Application

1) Drag the BP blueprint BP_Dhruv_Metahuman into the scene, adjust the orientation, and run.



2) Open VDMocapStudio, the virtual power motion capture engine, to broadcast data.

VDMocapStudio broadcasts data from connected devices in real time, and reads historical data broadcasts, see "VDMocap Studio Instructions for Use" for details.



3) Modify UDP related information (IP, Port), click request data, successful drive

