

# Unreal Engine version: 4.27

Plugin Description: VDMocap broadcast data, real-time or non-real-time driven UE model, with LiveLinkFace real-time driven face capture.

# 1. Create a new project and enable the plugin

1) Create a new UE project, find the project file, and copy the VDMocapPlugin folder of the UELiveLink plug-in we provided into the Content and Plugins folders, copy them into the root of the UE project.



2) Open the UE project, click Edit menu, start the plug-in, and restart the project.



41

#### VDMocapPlugin\_For\_LiveLinkFace\_UEUser Manual

u j	Main	E.		
文件	编辑	窗口	帮助	
🐝 放	历史记录	¢.		î
地南州	5	取消点击	Actor	Ctrl+Z
12.77.24	0	恢复(没有	与要恢复的内容)	Ctrl+Y 关
最近苏		取消操作	历史	-
基础	编辑			
米頂	of	剪切		Ctrl+X
20 may	4	复制		Ctrl+C
过场动		粘贴		Ctrl+V
虚拟制	4	拷贝		Ctrl+W
视觉效	×	删除		Delete
	配置			
几何倖		编辑器偏	好设置	
媒体	1	项目设置		
休和	1 1	插件		
N42-127			エカ14 (2)	

11 🖉 📠 🕅	×				- 🗆 X
		▶ 所有		VDMocapPlugin	X @-
◎ 所有	(351)		VDMocanPlugin		ii:+ 2.0
▲ 🕒 已安装	(2)	* *	VIRDYN		版中 2.0
Mixed Reality	(1)	×			
🔁 Other	(1)				
▲❷内置	(349)		✔ 已启用	编辑打包	👤 aaron
' <b>=</b> 2D	(1)		المحصية		
Advertising	(1)				
T AI	(4)				
🚍 Analytics					
🖬 Android					
🚍 Animation					
🚍 Assets					
🔚 Audio					
🔁 Augmented Reality					
🔁 Automation					
🔚 Blueprints					
🔚 Build Distribution					
🔁 Cameras					
🖬 Compositing					
🚍 Content Browser					
🔚 Database					
🖬 Dataprep					
🖸 Developer					新插件



11 🖉 hiff	×		– <b>–</b> ×
0 所有	(351)	▶ 所有 LiveLink LiveLink	X •·
	( 331 )	Live Link	版本 2.0
▲區已安装	(2)	LiveLink allows streaming of animated data into UE4	
🔁 Mixed Reality	(1)		
📜 Other	(1)		
◢ ❷ 内置	(349)	2 已启用	🕥 Epic Games, Inc.
'🚍 2D	(1)	Live Link Control Rig	▲ BETA 版本 1.0
🔚 Advertising	(1)	Allows access to LiveLink Data through Control Rig	
TE AI	(4)		
Analytics			
🖬 Android		₩已启用	📾 Epic Games, Inc.
🔁 Animation		Live Link Curve Debug III	A DETA #5 + 0 1
🔁 Assets		Allows Viewing LiveLink Curve Debug Information	
📜 Audio			
🔁 Augmented Reality			
🔁 Automation			Enic Camer Inc.
🔁 Blueprints			Cr Epic Games, inc.
🔚 Build Distribution		Live Link Over nDisplay	A BETA 版本 1.0
🖬 Cameras		LiveLink subjects synchronization for nDisplay setup	
🖬 Compositing			
🔁 Content Browser			
🖬 Database		必须重启虚幻编辑器才能使插件修改生效。	立即重启
🖬 Dataprep			
📰 Developer			新插件

u 🖉 👘	×		
0 所有	(351)	▶ 所有 Apple Apple	X •-
	( 331 )	Apple ARKit	版本 0.1
▲ 望 巳女装	(2)	Support for Apple's ARKit augmented reality system	
Mixed Reality	(1)		
🔁 Other	(1)		
◢ ❷ 内置	(349)	✓已启用	
'🚍 2D	(1)	Apple ARKit Face Support	版本 0.1
🖼 Advertising	(1)	Support for Apple's face tracking features	
'⊞ AI	(4)		
🚍 Analytics			
🔚 Android		✔已启用	
Animation		Apple Image Litils	s=+ 1.0
🖽 Assets		Utilities that operate on Climage, CVPixelBuffer, IOSurface, etc.	版本 1.0
🖽 Audio			
🖬 Augmented Reality			
🔁 Automation			Enic Camer Inc
🖼 Blueprints			CF Lpic Games, inc.
🔁 Build Distribution		Apple Movie Player	版本1.0
🔁 Cameras		Apple Platform Movie Player using AVPlayer library	
🔁 Compositing			
🔁 Content Browser		H & H	
🖬 Database		必须重启虚幻编辑器才能使插件修改生效。	立即重启
🔁 Dataprep			
Developer			新插件

## 2. Model Import

1) Create a new Model folder and import the used model into the Content\Model folder. The imported model should conform to the model specification document.

Note: To achieve face capture, the imported model must be checked to import the deformation target. For the model specification, please refer to the "Virtual Dynamics Model Specification" document.



广州虚拟动力网络技术有限公司	VDMocanPlugin For Livel inkFace UFUser	lanual
U	FBX导入选项 X	idificial
导入骨骼网格体	重置为默认	
当前资产: /Game/mode	del/V20210414	
⊿ 网格体		
骨骼网格体	✓ □	
导入网格体	🗹 🖻	
导入内容类型	几何体和蒙皮权重▼	
骨骼	None TC T	
顶点顔色导入选项	替换    ▼	
▶ 顶点重载颜色		
更新骨骼参考姿势		
使用TO作为参考姿势		
保留平滑分组	✓	
导入骨骼层级中的网格体		
导入变形目标		
导入网格体LOD	True	
法线导入方法	计算法现 👻	
法线生成方法	Mikk TSpace	
计算加权法线		
创建物理资产		
物理资产	天 👻	
	Q + Q	
	<b>▲</b>	
⊿动画		
导入动画		
	日本 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一 一	
▲ 四 保存所有 ← → ▷ 内容 → model	<b>~</b>	
plate		
ontent		
	aael haar hair_hol_t MateriaL MoteriaL MateriaL Billion V20210414 PhysicsAsset Steleton	

# 3. Animation Blueprint

1) Open animation blueprint

Double-click to open the model\_ABP animation blueprint in the Content\ABPTemplate folder, and follow the prompts to reselect the skeleton.



11 Mein				t20220516 ×
文件 编辑 窗口 帮助				
✓ 放置actor	ં 🛄 🙈 . પં/ત 🔠 🕅	🔿 🗖 🔬	_ 🚚_ 、 💷	界大纲视图
提家具	保存当前关卡 源码管理 模式 内容 虚幻商加	载 设置 Megascans 媒体描述文件	蓝图 搜索	
最近放置 基础 空Acto ⑦	▼ → 透视 () 光照 () 星示)	<ul> <li>✓ ✓ ✓ </li> <li>✓ </li></ul>	▶ 0.25 ③ 4 回 7个ac	·
光源 👔 空角色 🕜	省色器编译(80) Disable AllScreenMessages 送行相對		(1) 187	5 × .
虚拟制片 过场动画 空Pawi @		ø	ž	非择一个对象来查看详细信息。
视觉效果 👷 点光源 🍘	41			
媒体 几何体 页 玩家出 📀	正在加载 <sup>无法找到动画蓝图"mo</sup>	del_ABP"的骨骼,是否要新选择一个?	25%	
体积				
→	₹ ¥ ¥	E A		
■ 添加/导入 - 🕒 保存所有	✦⇒ ► 内容 ▶ ABPTemplate			<b>.</b>
は 本語の 本語の 本語の 本語の 本語の 本語の 本語の 本語の	ABPTemplate			ظ ۵
	1项(1被选中)			● 視聞选項 -

# 2) Redirecting the skeleton

Select the skeleton that needs to drive the model in the skeleton directory and click Redirect.



### 4. Blueprint category

1) Open the model\_bp blueprint template in the BPTemplate folder, click SkeletalMesh in the upper left corner, and select the created animation blueprint class in the right animation.





2)Click PoseableMesh in the upper left corner to select the skeletal mesh of the model.



3) In the variables there are three variables BodyBonesName, RHandBonesName and LHandBonesName The default value of each variable can be filled in according to the corresponding bone name of the model in turn (no fill NULL) (copy and paste into each variable according to the naming of the skeleton tree, Figure example for BodyBonesName)

Note: If the naming convention of bones is the same as ours, this part can be skipped directly.

1 v20210414 Skeleton*			×
文件编辑 资产 查看 调试 窗口 帮助			父类: Pawn
	/*	④ 细节	
+添加組件	🤳 - 🕺 🛒 🔛 -	<ul> <li>→ 提索详信</li> </ul>	Ø ≣ ⊙-
andel bn (自身)	2.藏不相关 类设置 类默认值 模拟 运行	只读蓝图	
→ Hotelogy(Lang) → 親口 f Construction Scrip	■ ■件图表	提示文本	
↑ SkeletalMesh	🔹 🕹 🛃 📾 🕾 🔳 10 🛆 10°. 🍠 0	0.25 3 4 生成时公开	
R PoseableMesh			
🔊 PhysicsConstraint			
		None None	-
		里利治汗 无	
		人戰以值	
		d Bardy Barran Marran	
		- body bolies Name	
+新港▼ 搬票 <b>Ω</b> ●▼	<b>*</b>	Think D Right Long	rlan
▲图表 +		Calf B Bight own	rleg
₽■■事件图表		Feet B Bight Feet	a constant a
▲函数 (21可覆盖) 💮		Ball B BightToe	
◆ 构造脚本	<b>T</b>	Thigh L LeftUpper	Leg
宏 +		Calf L LeftLower	Leg
▲変量 +		Foot L LeftFoot	
		Ball L LeftToe	
BodyBonesName		Spine Spine	
		Spine 1 Spine 1	
■件分发器 ◆		Spine 2 Spine2	
		Spine 3 Spine3	
		Neck Neck	
		Head	
		Clavicle R RightShou	lder
		Upperarm R RightUppe	rArm
2 编译器结果		Lowerarm R RightLowe	rArm
		Hand R RightHand	1
		Clavicle L LeftShould	der
		Upperarm L LeftUpper	Arm
		Lowerarm L LeftLower	Arm
		清除 Hand L LeftHand	





# 5. Operation

## 1. Model connection

Drag the model's blueprint class (model\_bp file) into the scene and click Run.





## 2. VDMocapStudio data reading:

Real-time method driver:

1) Connect the device, calibrate the action according to the specification, and ensure that the real time drive model is working properly in VDMocapStudio.



2) To run the UE project, the local IP and port of VDMocapStudio should be the same as the IP address and port of the UE.

	VDDataBead dst ip: 192.168.1.15 dst port: 7000 请求数据 LiveLink:	
💟 数据广播		×
封包格	IP <u>192.168.1.15</u> 端口 7000 试 默认. ▼	
	开启广播	



3) Click to request data and read the real-time data-driven model.



Non-real time method driven:

1) Add and play \*.md action data in VDMocapStudio and turn on broadcasting data.





2) To run the UE project, the local IP and port of VDMocapStudio should be the same as the IP address and port of the UE.



3) Click to request data and read the non-real-time data-driven model.





### 3. LiveLinkFace face capture real-time connection

1) Prepare an iPhone X or above, download the LiveLinkFace App from the Apple Store, the phone needs to be on the same LAN as the computer.





2)Open the App and click Settings in the upper left corner.



3)Click on the first line of LiveLink to enter the settings



4)To add a target, enter the current computer's LAN ip address, other settings can be ignored.





5)Enter the name of the set LiveLink master.

VDData	Read		
dst ip:	192.168.1.15		
dst port	: 7000		
	请求数		
LiveLin	k: iPhone X		