

## REALITIES

TRANSITION

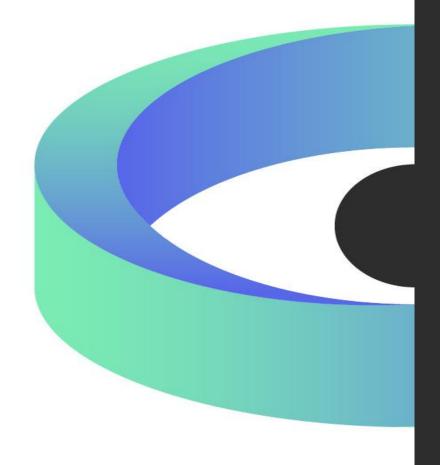
EXPLORE & SUPPORT ALTERNATIVE XR



# WHAT IS REALITIES IN TRANSITION?







RiT is an international community that aims at both exploring and supporting alternative Extended Reality (XR) productions, and experiment new narratives and creative processes.

**RiT** aims at building a strong, independent European XR creative and activist community, a think tank to tackle current and future challenges in the digital sector.



## THE EUROPEAN XR COMMUNITY

RiT aims at building an European XR community, composed of emerging artists, experts and mentors who want to reflect on and promote a sustainable, open and inclusive XR.







Bruxelles (BE)



Art, Technology & Society

Linz (AT)





Marseille (FR)



Zagreb (CR)





Gijón (ES)









RiT wants to consolidate and share XR related knowledge, tools and methodologies.

RiT takes a **critical look at XR**, bringing together creation, curation and dissemination practices with education methods, privacy, ethics and sustainability issues.





RiT wants to be a major actor in the XR sector, exploring new narratives and creative processes and inspiring the whole community.

Realities in Transition supports emerging XR creatives, artists and projects to incorporate common and open source methodologies as well as inclusive and sustainable practices into experimental XR creations.





RiT creates opportunities for networking and peer-to-peer learning between independent and activist XR initiatives, XR artists and researches, decision-makers, and the general public.

RiT wants to bring together these stakeholders on topics such as how to use XR as a common, open and sustainable tool in their work.

RiT is also a hub for existing independent and activist XR initiatives and promotes them, giving artists recognition at European level.



# XR EXHIBITIONS



To show the latest XR related art pieces developed by the international community of artists.

To ease the access to this works of art to a wider audience by sharing the technology required for them.

## Researching about XR cultural, social and ethical impact.





## XR LABS & WORKSHOPS



### WHY?

To transmit open source technical, cultural and critical thinking tools for XR.

To engage members of the Creative and Activist European XR community, at a European level.

### FOR WHOM?

Local students and young creators.







For 22 weeks, 17 emerging creators are supported by the RiT project during their artistic process.

Through 3 international calls, RiT encourages inclusive and sustainable projects.

The artworks are then showcased in different exhibitions, fairs and festival supported by RiT.



# EUROPEAN XR CAMPS



Through networking activities, peer-to-peer learning workshops, conferences and hackathons, the XR Camps bring together the Creative and Activist European XR community every year.

The Camps are also the occasion to gather the community around artistic exhibition and performances of XR projects.



## EUROPEAN XR MANIFESTO



The European XR manifesto is a statement of the values, principles, beliefs and mission of the Creative and Activist European XR community.



# HACKATHON VR Sculpting with MetaRick



MetaRick is an artist from South Africa. He is an experienced character and world builder and is behind the breathtaking **Uncanny Alley** projects.



### What is VR Sculpting?

VR sculpting is defined as digitally sculpting 3D objects in the VR environment, moving the cursor in six degrees of freedom with VR controllers instead of a mouse and keyboard.

Traditional 3D sculpting applications are heavily technical and take time to master, so here is when VR comes into play!



It means manipulating a 3D object as if it were made of clay, with software that offers tools to push, pull, carve smooth, grab, and pinch the mesh, build up and remove material.



For this hackathon we will be learning from his workflow, how to model an avatar in VR and then using it in VRChat.



# What will you need?

- VR headset: Rift, Rift S, or Quest with Oculus Link.
- A PC running windows OS.

- Adobe Medium (download)
- Mixamo (web link)
- Unity (2022.3.22f) (release)



# What will you need?

- A Meta account.
- A Unity Hub account.
- A VRChat account.
- A Mixamo account.



# What will you need?

- Some knowledge 3D modelling.
- Some basic knowledge of Unity.



### Watch out!

You will need to spend some time in VRChat in order to be able to upload an avatar on your account.



### This tutorial has three parts:

Modelling in adobe medium

Rigging in Mixamo

Exporting from Unity



## 1) Modelling

Tips for creating an simple avatar functional for rigging and exporting to VRChat.

Use this guide to help you learn Medium's features and craft high-end 3D models with unparalleled freedom, exploring new concepts and iterating on ideas in realtime.

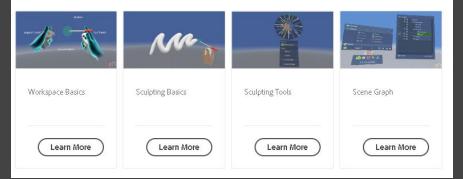
Start at the beginning, visit each section individually, or connect with the Community to work your way through a project.

#### Join the conversation



Visit the Medium Discord Community to be inspired and get answers to top questions.

### Popular topics



Adobe Medium has an built-in tutorial to introduce you to all the available modelling tools.



Be aware of the number of polygons that are created with every gesture and make use of the tools to lower the resolution of your project.



You can import a humanoid model to use as reference for orientation and size. Always in T-Pose, avoid removing pivot parts like elbows and knees.



Apply simple base colors, you can use other tools for more complex texturing later.

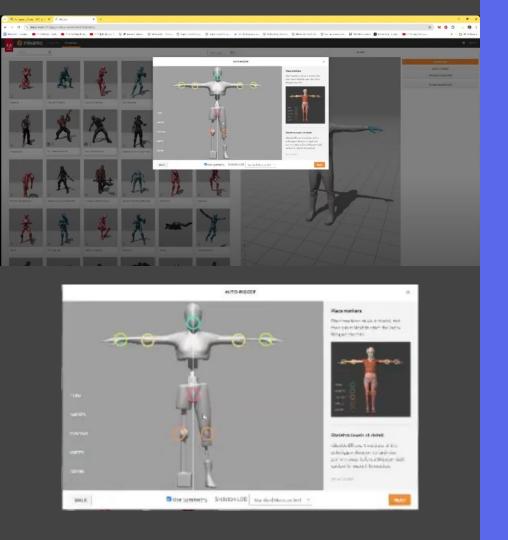


When exporting try to keep the number of polygons under 10k. Also check the next tips for common modelling errors by automating rigging.

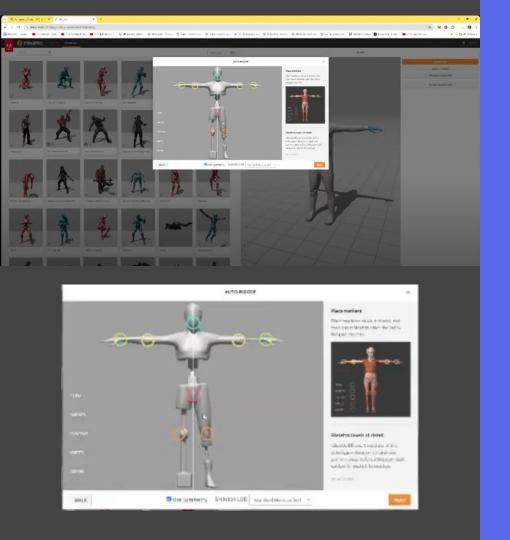


## 2) Rigging

Tips for adding bones to your avatar without errors.

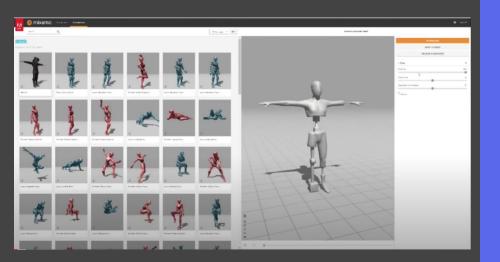


Import your model to Mixamo and apply the process of automated rigging.



# Some possible errors you could find are:

- The mesh is not continuous and has holes.
- ☐ The model has addons that don't belong to a humanoid figure (masks, backpacks, etc)
- Lack of definition at the pivot points (knees, elbows or neck).
- Misplacing the rigging points on actual mesh.

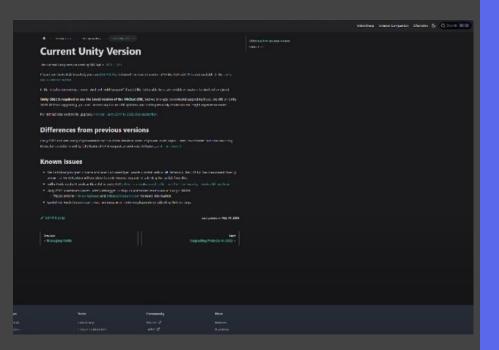


If the automated rigging process is a success. Select the T-pose animation and download it as FBX Binary.

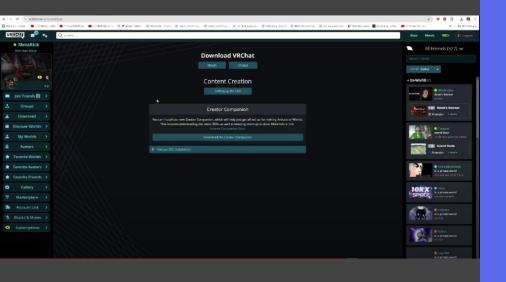


## 3) Exporting in Unity

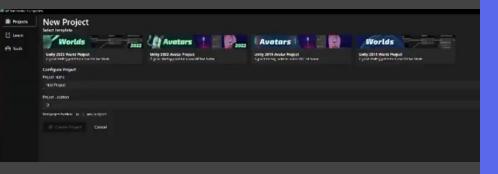
Tips for configuring and exporting your avatar to VRChat.

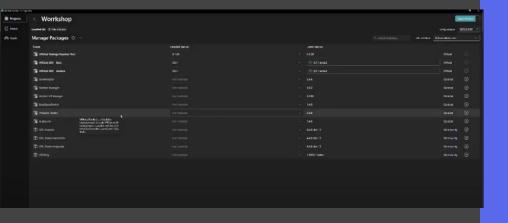


Through logging into Unity Hub, you can download and licence the Unity version that is up-to-date with VRChat. At this moment is 2022.3.22f.

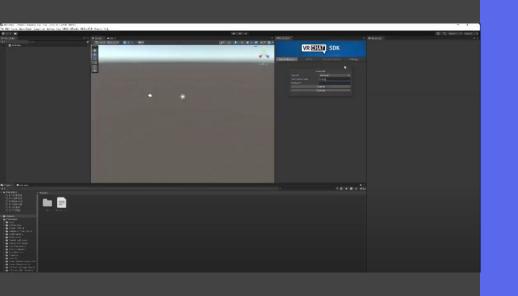


Download the **Creator Companion** tool from VRChat downloads. This sdk will help with the configuration of Unity.

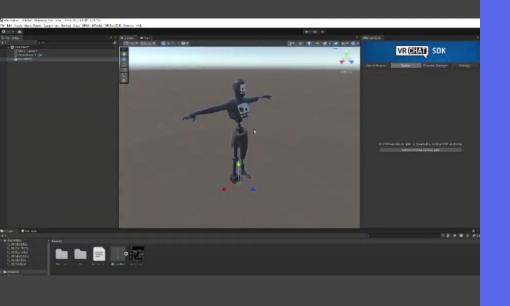




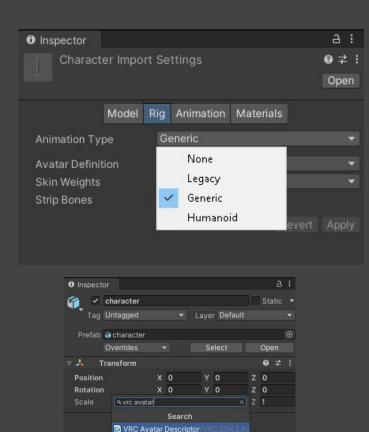
**Inside Creator** Companion you will need to create a New Project, in this case, of type Avatars (by the time the last version is 2022).



Once it is created and has the required libraries (there are other non-required but worth looking into). You can open it. It will open in Unity.



After logging into **VRChat plugin** window, you can import your FBX from Mixamo and the png texture from Adobe Medium into Unity.



WRC Head Chop (VRC.SDK3.Avatars.(
 VRC Impostor Environment (VRC.SDK:
 VRC Impostor Settings (VRC.SDK3.K)
 VRC Spatial Audio Source (VRC.SDK3.K)
 VRC Station (VRC.SDK3.Avatars.Com

New script

#### Configuration:

- The FBX asset is set to "humanoid" in the rig tab the Inspector.
- Add a VRC Avatar component to the model.



#### **Publication:**

- Fill the required information: Name, Description, Content, Visibility.
- Select a Thumbnail.
- Click Auto Fix on all the warnings to fix them.
- Accept the terms and clic "Build and Publish"



And finally, you can log into VRChat and go to the Avatars menu, to Uploaded submenu to find your avatar.



