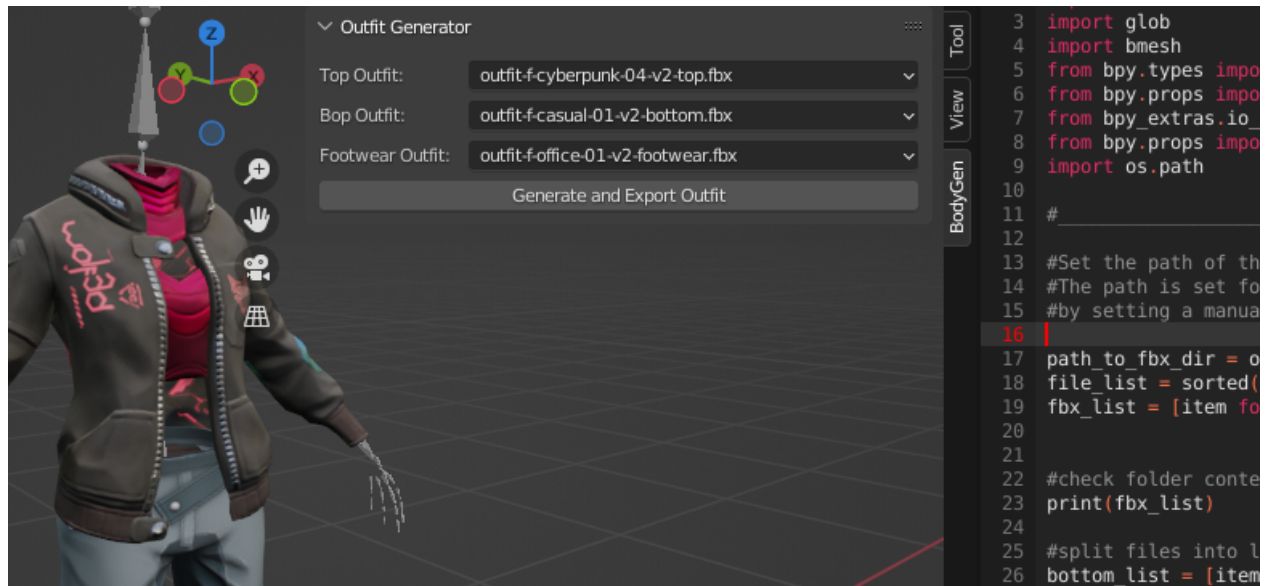


Tech Artist: take-home assignment

Full body Outfit Generator tool

Tool documentation



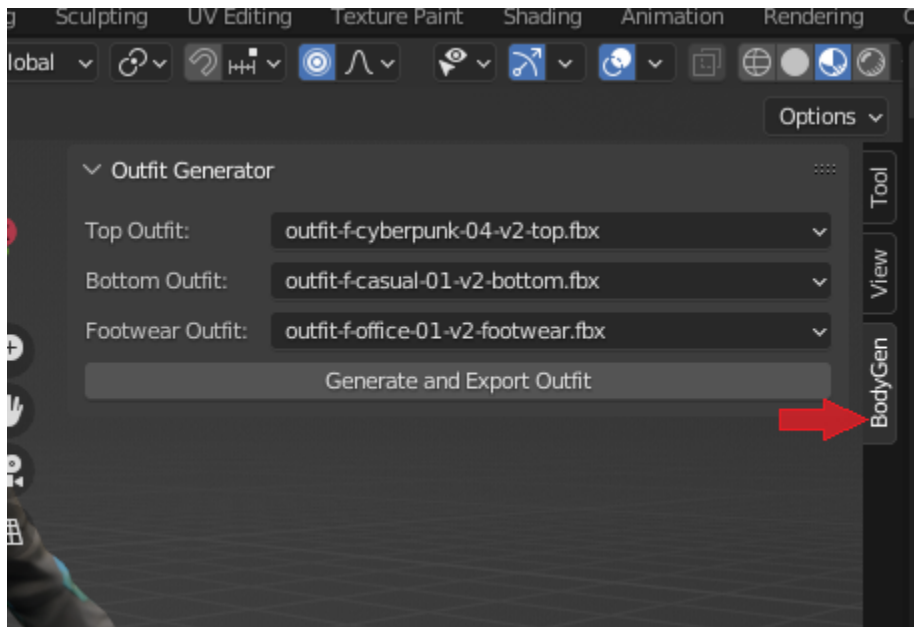
Test setup

To test the tool download the folder including: the blender test scene (*PythonScriptWorkingSpace.blend*) the library with all outfit bodypart and the script.

As the folder paths set in the script have been preset the folder organization has to be maintained to have the script working. And you need to use the test scene.

Script utilization

- Launch the (***PythonScriptWorkingSpace.blend***) blender test scene, then load the script (*BodyGenerator.py*) in the Text Editor window (if required) and Run the script.
- A tab named “*BodyGen*” will appear in the N-Panel of the scene viewport.



- Pick a combination of outfits in the dropdown menus (Top Outfit / Bottom Outfit / Footwear Outfit)
- Run the Generate and Export Outfit button, it will automatically load your Full Body Outfit combination in the scene, clear the collection and create an exported .fbx file in the “*ReadyPlayerMe\Library\CustomOutfits*” folder.



Note: Each time you generate a new Outfit the scene is clean (previous outfit is removed (other meshes also as the export is based on the scene content)). Every generated Outfit is named regarding the combination of outfit you choose and stored in the export folder.

Export naming convention:

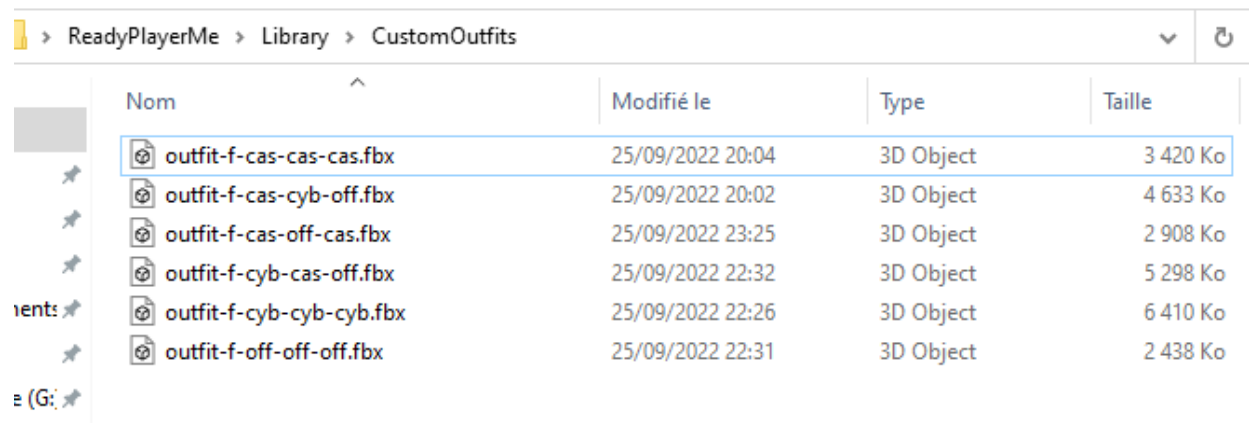
Outfit-f-**top**-"**bottom**"-"**footwear**"

casual outfit : cas

office outfit : off

cyberpunk outfit: cyb

(Ex: outfit-f-off-cas-cyb.bx)



ReadyPlayerMe > Library > CustomOutfits				
	Nom	Modifié le	Type	Taille
	outfit-f-cas-cas-cas.fbx	25/09/2022 20:04	3D Object	3 420 Ko
	outfit-f-cas-cyb-off.fbx	25/09/2022 20:02	3D Object	4 633 Ko
	outfit-f-cas-off-cas.fbx	25/09/2022 23:25	3D Object	2 908 Ko
	outfit-f-cyb-cas-off.fbx	25/09/2022 22:32	3D Object	5 298 Ko
	outfit-f-cyb-cyb-cyb.fbx	25/09/2022 22:26	3D Object	6 410 Ko
	outfit-f-off-off-off.fbx	25/09/2022 22:31	3D Object	2 438 Ko

Improvement required

First of all, with a bit more time I would integrate the gestion **for the folder path** to not be dependent on the current folder structure: customizable library folder / exporter folder.

Split the main Outfit Generator functionality to allow testing in the scene before an export.

The dropdown menus have been coded for this specific library. Making them **more generic** to accept an unlimited amount of files and to store the references dynamically to be able to deal with any library update (if elements are added to the library). Same for the export file naming system.

The overall idea is to grow the tool in a way it can adapt to any kind of folder content and naming. Making it more adaptable to a new library content.

Other options could be added: like changing the texture sets, having a panel of material parameters to homogenize the visual result of an outfit combination, add other body parts and specify having an option to let an Outfit category empty (to load a naked foot character for example)...