Texture Processing Workflow Tool

In 3D game development, there is usually one specific workflow for creating the assets. Often it involves some labor-intensive steps where the artist has to do the same thing over and over for each 3D object (games can have thousands of objects). The goal of this project is to create a texture processing tool which allows to specify a texture manipulation workflow and apply it to different inputs very quickly. While it is also possible to create macros in Photoshop it is not designed for PBR material manipulation.

Examples

Here is one example of a texture processing workflow where specific colors from a texture had to be separated into a color texture and uncolored texture. This way the colors can be combined in the game engine and this allows to recolor the environment.

Another example is in Steam official Dota 2 character creation workflow where different baking information is combined before coloring the character [https://support.steampowered.com/kb/8700-SJKN-4322/dota-2-character-texture-guide](https://support.steampowered.com/kb/8700-SJKN-4322/dota-2-character-texture-guide)

Technologies

Such software needs the following features:

1. Node-based editor for defining the processing workflow.
2. Processing panel with inputs and parameters (similar to Substance viewer)
3. Model viewer for observing the textures on a mesh.

Making such an environment from scratch would be too much work. Fortunately there are open source libraries made for ArmorPaint, like ZUI and Iron that already support most of these features like drawing UI elements (including node canvas). As well Armorpaint itself is an excellent open-source example of how to develop such tool.

Armorpaint is made with Haxe programming language which syntax is similar to JavaScript and C#. So before choosing this project I recommend to check the [https://github.com/armory3d/armorpaint](https://github.com/armory3d/armorpaint) Github to see the language syntax. You can also try to clone and build it yourself.

P.S. some part of this project can be extended to a Bachelor’s thesis if there is interest.

Contact

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