OpenGl 3D Modeler
11/25/2016

Working Prototype Known Problems Report

Weight Paint:

-Action: When the weight paint button is pressed it opens up a file browser and does not add in any weight paint to the overall algorithm.

-Reason: Feature not properly implemented in the overall system.

-Fix: Can be fixed with the algorithm being changed to accommodate a 2D array like in ImportedImage.h changing weight to a 2D array and other sections of the 3D generator.

- Action: Occasional crashes when the mouse is clicked on the weight paint screen.

-Reason: If the current aspect ratio of the image of the side is different from the image that is chosen in the file browser there will be a vector index out of bounds error.

-Fix: By removing the image file browser and finding a way to connect the side image to the weight image we can prevent a different aspect ratio and an index out of bounds error from happening.

Update Button (fixed in branch “Post-Submit”):

Action: Program crashes on hitting the update button before any pictures are added.

Reason: All the objects are NULL at the beginning so it will throw a null pointer exception and crash. This issue is located in the push button settings.

Fix: By disabling the button at the start before all the pictures are in it will no longer be able to be pressed. This will prevent the update function from running and throwing a null pointer exception.

Picture Preview/Editor

-Action: Zooming out or zooming in too far will cause the image to flip and do the opposite zoom.(fixed in branch “Post-Submit”):

Reason: When the zoom value exceeds either the max or min value it will loop back around and go to the opposite value.

Fix: By adding in a check that prevents a zoom in or out of a specific value it will no longer loop back around.

-Action: Some of the instructions on the side are incorrect.

Reason: Some of the information was from previous builds that were not changed in future builds.

Fix:Update the instructions on the side.

-Action: Color picker (3 Hotkey) does not pick the color for the background

-Reason: Feature not properly implemented in the overall system due to it being prone to crashing.

-Fix: Can be fixed by implementing the tool into the overall 3D model algorithm.

-Action: Color Selector does not select the color for output images

-Reason: Feature not properly implemented in the overall system due to it being prone to crashing. .

-Fix: Can be fixed by implementing the tool into the overall 3D model algorithm.

-Action: Nullify Color Selector does not select the color to nullify:

-Reason: Feature not properly implemented in the overall system due to it being prone to crashing. .

-Fix: Can be fixed by implementing the tool into the overall 3D model algorithm.

<u>Cube Preview (fixed in branch “Post-Submit”):</u>

-Action: Some background sections are not nullified in the image

Reason: When the background is nullified it only checks for completely white background so if there is a slightly off white color it will not nullify those colors.

Fiz: Add a bigger range of colors that is being nullified to prevent these colors showing up in the preview.

-Action: Cube does not take into account the different positions each picture is in.

Reason: When the images go in they don’t take into the account of the orientation of the image and instead just places the image from the preview to the cube.

Fix: Add code in the cube preview function that take into account the orientation and display it on the code.

<u>Preview Generator:</u>

-Action: Resolution below 3 will crash the system or computer (fixed in branch “Post-Submit”)

Reason: Certain resolutions can crash the system due to any processing power on the computer. At lower resolutions there can be millions of pixels being loaded in which can cause the computer or system to crash due to lack of memory.

Fix: Change the range of resolution to not drop below a certain amount like 3.

-Action: Crash on certain pairs of resolution and size

Reason: Occasionally depending on the pair and image the algorithm does not get enough image to create a side. This will make the system push in a blank side that can cause a crash due to a null pointer exception.

Fix: A check for null pointers in the system that result in an error message instead of a crash.

-Action: Crashes if the images can’t form a picture.

Reason: If the images can’t form a 3D picture it will pass in empty sides and a lack of a null pointer check crashes the system.

Fix: Add in a null pointer check into the system that prevents crashes.

-Action: Will not generate an image if the images are too big.

Reason: The image is so big that the camera for the model is within the model which creates a blank image.

Fix: Allow for the camera to zoom in and zoom out of an image.

-Action: Will not generate all images are solid color

Reason: The current algorithm has it set that if the pixel is not touching a null node it will delete it. Since there are no pixels to be nullified, all the pixels are not touching a null node which means all of it is deleted and a dark image is sent through.

Fix: Change the algorithm to take into account solid colors.

Action: Occasionally the image will not be connected creating a gap 3D model

Reason: Some of the loops are not finding loops when they should be finding loops causing a gap in the system.

Fix: Spend more time in the algorithm to fix the bug that causes this.

<u>Export Function:</u>

Action: Export Function does not work.

-Reason: Was not implemented into the overall system.

-Fix: Add the connections that will allow the export function to work. As well as clean up and overall fix the export function.

Action: Can not type in a file name

Reason: Input window not properly implemented correctly.

Fix: Connect the keyboard presses to the input window.