p5.js

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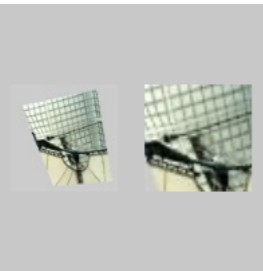🌐 English ∨   ⇄ Accessibility ∨   🔍 Search

uvs

An array that lists the texture coordinates for each of the geometry's vertices.

In order for texture() to work, the geometry needs a way to map the points on its surface to the pixels in a rectangular image that's used as a texture. The geometry's vertex at coordinates `(x, y, z)` maps to the texture image's pixel at coordinates `(u, v)`.

The `myGeometry.uvs` array stores the `(u, v)` coordinates for each vertex in the order it was added to the geometry. For example, the first vertex, `myGeometry.vertices[0]`, has its `(u, v)` coordinates stored at `myGeometry.uvs[0]` and `myGeometry.uvs[1]`.

Examples

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■

```
let img;

// Load the image and create a p5.Image object.
function preload() {
  img = loadImage('/assets/laDefense.jpg');
}

function setup() {
  createCanvas(100, 100, WEBGL);

  background(200);

  // Create p5.Geometry objects.
  let geom1 = buildGeometry(createShape);
  let geom2 = buildGeometry(createShape);

  // Left (original).
  push();
  translate(-25, 0, 0);
  texture(img);
  noStroke();
  model(geom1);
  pop();

  // Set geom2's texture coordinates.
  geom2.uvs = [0.25, 0.25, 0.75, 0.25, 0.25, 0.75, 0.75, 0.75];

  // Right (zoomed in).
  push();
  translate(25, 0, 0);
  texture(img);
```

This page is generated from the comments in src/webgl/p5.Geometry.js . Please feel free to edit it and submit a pull request!

Related References

calculateBoundingBox
Calculates the position and size of the smallest box that contains the geometry.

clearColors
Removes the geometry's internal colors.

computeFaces
Computes the geometry's faces using its vertices.

computeNormals
Calculates the normal vector for each vertex on the geometry.

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