Visual Code Workshop

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Danne Woo
dannewoo@nyu.edu

Processing vs Illustrator

Vector Based
Limited to Tools

Vector Based
Repetition
Patterns
Randomization
Data Driven Design
Custom Functions
Custom Algorithms
Custom GUI

Helpful Drawing/Shape Functions

Ellipse or Circle – **ellipse(x, y, w, h);**

Rectangle or Square – **rect(x, y, w, h);**

Triangle – **triangle(x1, y1, x2, y2, x3, y3);**

Quadrilateral – **quad(x1, y1, x2, y2, x3, y3, x4, y4);**

Complex Shapes:

beginShape(); – Start drawing a new shape

vertex(x, y); – Vertex Point

bezierVertex(x1, y1, x2, y2, x3, y3); – Bezier Curve

…

endShape();

PVector contain an x and y in 1 variable:

```
PVector point1 = new PVector(x, y);
ellipse(point1.x, point1.y, 10, 10);
```

Helpful Positioning Functions

Translate Object to New Location – **translate(x, y);**

Effecting just one object in a loop:

```
pushMatrix();
translate(x, y);
ellipse(x, y, w, h);
popMatrix();
```

Helpful Color Functions

Color Mode – **colorMode(COLOR, max, max, max);**

RGB (red, green, blue) – **colorMode(RGB, 255, 255, 255);**

HSB (hue/color, saturation, brightness) – **colorMode(HSB, 360, 100, 100);**

Helpful Pattern Functions

Create a pattern 10 objects wide and 5 objects high with 20 pixel padding use a double for loop:

```
for (int x = 0; x < 10; x++) {
    for (int y = 0; y < 5; y++) {
        ellipse(x*20, y*20, 12, 12);
    }
}
```

Helpful Random Functions

Random integer between 0 and 500:

random(500);

Random integer between 100 and 500:

random(100, 500);

Toxiclibs – Color Schemes

Geomerative – Geometry and Type

ControlP5 – GUI

Processing PDF – Output Vector PDF

Examples

Form/Shape

Color

Drawing

Type

Data

Randomization

Patterns

GUIs

Outputting PDFs

Links

Blog: itp.nyu.edu/residents/visual-code-workshop

Git: github.com/itpresidents/visual_code_workshop

Printing Code: runemadsen.com/printing-code