

INTRODUCTION

P5

PETRA ISENBERG

VISUAL ANALYTICS

p5.js

[Download](#) * [Start](#) * [Reference](#) * [Libraries](#) * [Learn](#) * [Community](#)

Hello! p5.js is a JavaScript library that starts with the original goal of [Processing](#), to make coding accessible for artists, designers, educators, and beginners, and reinterprets this for today's web.

Using the original metaphor of a software sketchbook, p5.js has a full set of drawing functionality. However, you're not limited to your drawing canvas, you can think of your whole browser page as your sketch! For this, p5.js has add-on [libraries](#) that make it [easy to interact](#) with other HTML5 objects, including text, input, video, webcam, and sound.

p5.js is a new interpretation, not an emulation or port, and it is in active development. An official editing environment is coming soon, as well as many more features!

p5.js was created by [Lauren McCarthy](#) and is developed by a community of collaborators, with support from the [Processing Foundation](#) and [NYU ITP](#). © [Info](#).



Processing

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Welcome to Processing 3! Dan explains the new features and changes; the links Dan mentions are on the [Vimeo page](#).

» [Download Processing](#)

» [Browse Tutorials](#)

» [Visit the Reference](#)

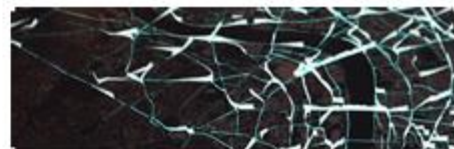
Processing is a flexible software sketchbook and a language for learning how to code within the context of the visual arts. Since 2001, Processing has promoted software literacy within the visual arts and

» [Exhibition](#)



[Fluid Leaves](#)

by Reinoud van Laar

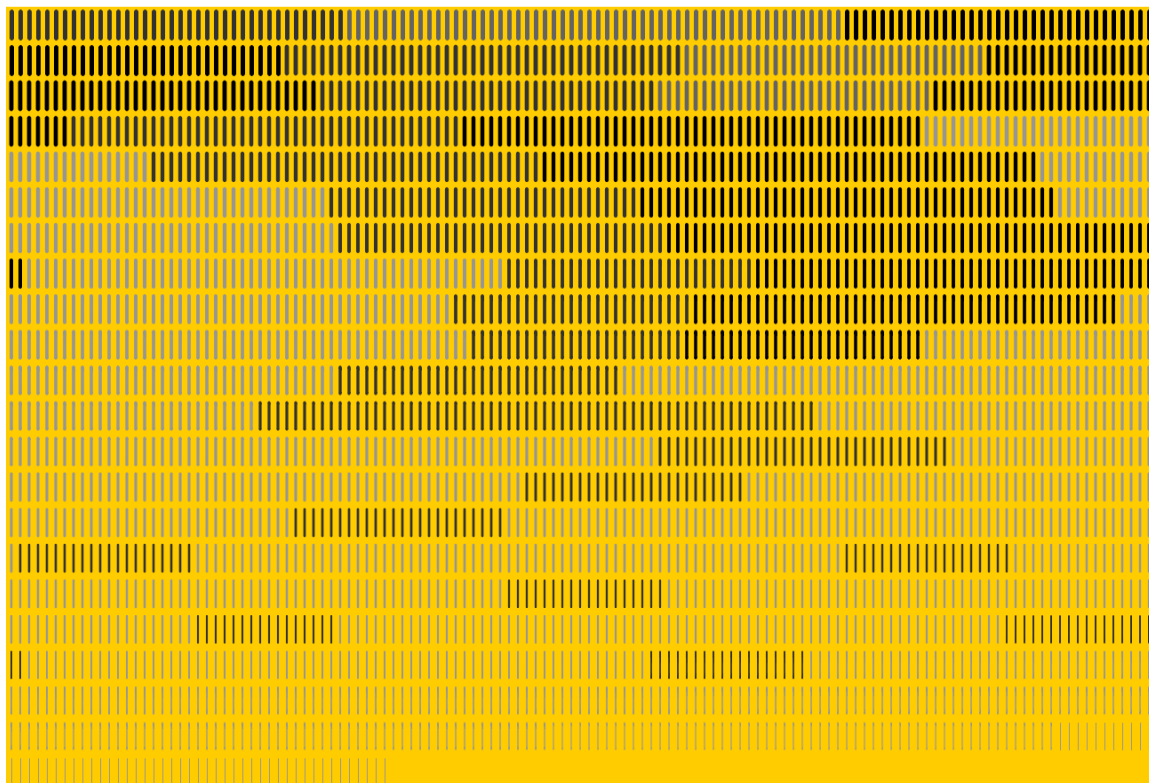


[cf.city flows](#)

by Till Nagel and Christopher Pietsch



WHAT WE WILL BE BUILDING TODAY



DOWNLOAD

<https://p5js.org/download/#editor>

Start

Editor

Reference

The p5.js editor is currently in development, try out a beta version of it now. Help out by posting [feedback](#) and [bugs](#).

Libraries

Tutorials

Examples

Books

Community

Mac OS X

p5 editor
version 0.6.1

Windows

p5 editor
version 0.6.1

Linux

p5 editor
version 0.6.1

START

sketch.js

File View Edit Help

p5*



Untitled

sketch.js



```
1 function setup() {  
2   |  
3 }  
4  
5 function draw() {  
6  
7 }
```

SAVE

sketch.js

File View Edit Help

p5*



PaperVis

sketch.js



```
1 function setup() {  
2   |  
3 }  
4  
5 function draw() {  
6  
7 }
```

GO TO

Name ^

 libraries
 desktop.ini
 index.html
 sketch.js



Name ^

 data
 libraries
 desktop.ini
 index.html
 sketch.js

COPY DATA FILE

Analytics Class > 2016 > Assignments > 9_P5Intro > P5Intro.R > data

Name

Date modified



Vispubdata-Grobid-min.csv

20-Sep-16 22:05

```
1 var w = 1300;
2 var h = 900;
3
4 function setup() {
5
6     createCanvas(w, h);
7     noLoop();
8     background(255, 204, 0);
9 }
10
11 function draw() {
12
13 }
14
```

```
1 var w = 1300;
2 var h = 900;
3
4 function preload(){
5     table = loadTable("data/Vispubdata-Grobid-min.csv","csv","header");
6 }
7
8 function setup() {
9
10     createCanvas(w, h);
11     noLoop();
12     background(255, 204, 0);
13
14     console.log(table.getRowCount() + " total rows in table");
15     console.log(table.getColumnCount() + " total columns in table");
16 }
17
18 function draw() {
19
20     .....
21 }
22
```

```
function draw() {  
  
    var spacing = 10;  
    var x = 0;  
    var y = 5;  
    var length = 10;  
    var lineheight = 30;  
  
    for (var i = 0; i < table.getRowCount(); i++)  
    {  
        x = x + spacing;  
  
        if (x > w - spacing) {  
            x = x % w + spacing;  
            y = y + lineheight + 10;  
        }  
  
        line(x , y, x, y + lineheight)  
    }  
}
```

```
4  var table;
5
6  var yearCol;
7  var conferenceCol;
8  var minYear;
9  var maxYear;
10
11 var minWidth = 1;
12 var maxWidth = 5;
13
14 var fills = [0,50,100,150,200];
15 var conferences = ["VAST","InfoVis","SciVis","Vis"];
```

```
22 ▾ function setup() {  
23  
24     createCanvas(w, h);  
25     noLoop();  
26     background(255, 204, 0);  
27  
28     console.log(table.getRowCount() + " total rows in table");  
29     console.log(table.getColumnCount() + " total columns in table");  
30  
31     yearCol = table.getColumn("Year");  
32     minYear = min(yearCol);  
33     maxYear = max(yearCol);  
34  
35 }
```

```
45     for (var i = 0; i < table.getRowCount(); i++)  
46     {  
47  
48         x = x + spacing;  
49  
50     if (x > w - spacing) {  
51         x = x % w + spacing;  
52         y = y + lineheight + 10;  
53     }  
54  
55     currentYear = yearCol[i]  
56     currentWidth = (currentYear - minYear) / (maxYear - minYear) * (maxWidth - minWidth) + minWidth;  
57  
58     strokeWeight(currentWidth);  
59  
60     line(x , y, x, y + lineheight)  
61 }  
62
```

```
function setup() {  
  
  createCanvas(w, h);  
  noLoop();  
  background(255, 204, 0);  
  
  console.log(table.getRowCount() + " total rows in table");  
  console.log(table.getColumnCount() + " total columns in table");  
  
  yearCol = table.getColumn("Year");  
  minYear = min(yearCol);  
  maxYear = max(yearCol);  
  
  conferenceCol = table.getColumn("Conference");  
  
}
```

```
62     var conf = conferenceCol[i];  
63     var index = conferences.indexOf(conf);  
64     var fillColor = fills[index];  
65  
66     stroke(fillColor);  
67  
68     line(x , y, x, y + lineHeight)  
69 }  
70
```