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KINETIC TYPOGRAPHY - FIGURATION AND TECHNOLOGY

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Introduction



One of the greatest inventions in human history is the letter or what it enables and that is the transmission of written words. Typography is what communication looks like. Kinetic typography is considered as a trend in web design development. Kinetic typography implies letters in motion. It is an animation technique used to make letters shrink, expand, fly, move slowly, and change in a number of ways for the user. The effect can be simple and short with small modifications or quite complex and long lasting.

The use of kinetic typography has exploded recently due to the greater use of the technique in web design. Kinetic typography is gaining in popularity as a background effect on websites and in web-based videos. All this was made possible by a larger broadband network and increased speed of surfing the Internet and the web.

Kinetic typography is used for several reasons because it can add emphasis to a particular content. It can help convey tone and feelings. This can be an affordable option for those on a limited budget.

Given the popularity of kinetic typography, today there are various tools and software that allow the creation of moving text. Professional programs with a multitude of tools are available, but also free programs that offer a wide range of tools and templates for creating interesting solutions in the field of kinetic typography.

Experimental



In this paper, several examples of kinetic typography made in Processing are presented. The characters are designed to simulate handwriting and follow the typographic rules in Fontlab. Fonts are generated and installed in a computer so that Processing can use them in program codes that create kinetic typography. Processing displays fonts using the .vlw font format, which uses images for each letter, rather than defining them through vector data. The loadFont() function constructs a new font and textFont() makes a font active (Reas et al., 2007). The Processing development environment is a simplified environment for writing computer code. All examples use the abbreviation of the name of GRID symposium and are shown below.

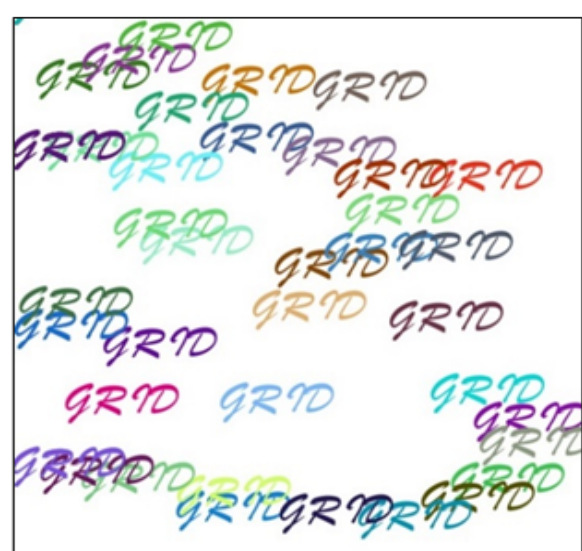


Figure 1:
Sketch FrameRate 5



Figure 2:
Sketch FrameRate 30

Figures 1 and 2 shows the printing of "GRID" text in interaction with the user. Printing is repeated regardless of the movement of the mouse position on the screen. The frameRate command specifies the number of frames displayed per second. A very short program

code shows an interesting solution that attracts the user's attention and keeps just in order to interactions achieved by the mousex and mousey commands. X and y are the values of the mouse position in the coordinate system on the screen. By moving the mouse, the user changes the values of x and y, and in these places a imprint is made in a different color each time.



Figure 3
After start



Figure 4
After few seconds

Part of the animation of the second example of kinetic typography in Processing is shown in Figures 3 and 4. Opening the sketch starts a program that has a frameRate set to 5, which means that it displays 5 imprints of the text "GRID" in one second. The X and Y values that determine the position of each imprint in Sketch, are in the range from 0 to 300, and generates randomly, which is clearly visible in Figure 3.

Also, with each display of text, R G B color values are generated pseudo-randomly, which is especially emphasized in Figure 4. That's way each print has its own shade. The code execution lasts until the user click the mouse. The code defines that the mousePressed command stops the performans of the program, i.e. only the black background color is visible on the screen. Immediately after the click, the program starts running again and very fast we have a full sketch of the text "GRID" in various colors. Regarding a parameters defined pseudorandomly, each image is actually unique. And in this example, a handwritten font from its own database of monoline strokes was used. And in this example, there is an interaction with the user where he participates in image creation.

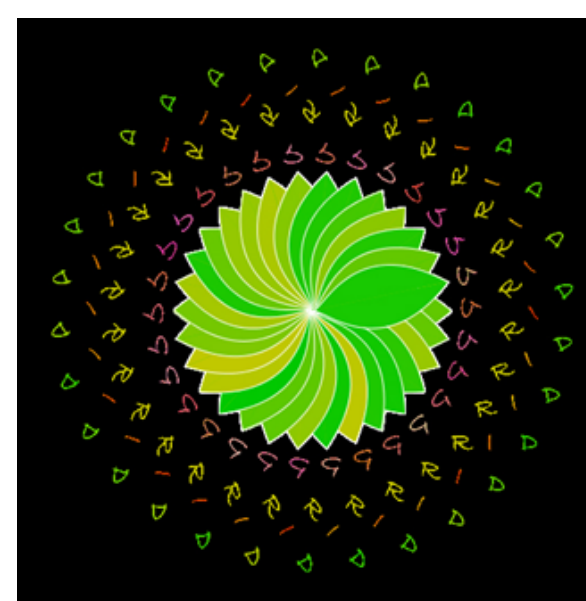


Figure 5
After start

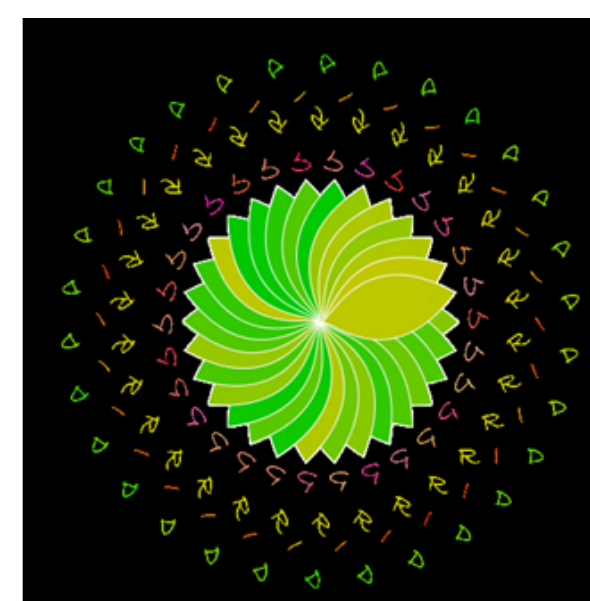


Figure 6
After few seconds

The fourth example shows a combination of computer graphics and typography in Processing. Using a for loop and Bezier curves, a rosette is programmed, and each "leaf" has its own color. In the same for loop there are also individual letter characters that form the text "GRID". In previous examples, the program understood the "GRID" text as a whole and the color or display position change, applied to all letters at once. Here each letter character has its own position, its

own angle of rotation, and its own color. In this example, the dynamism is achieved by changing the color on the rosette leaves so that the impression of rotation is created which is visible in Figures 5 and 6. The letters GRID change color quickly, so that our eyes seem to flicker which further emphasizes the dynamics and movement which really no exist. The generation of letters and rosette curves occurs at the same position

Discussion / Conclusion



Processing is a programming language that offers various interactive solutions either in computer graphics or typography. Kinetic typography, i.e. text in motion, attracts the viewer's attention and keeps it much longer than a static image. This paper shows through several examples the possibilities of programming typography in motion. The use of the Processing programming language enables interactivity with the user in such a way that the user, by changing the position or clicking the mouse, on his own determines on which parts of the screen the mobile typography will be created. Likewise, the user controls the text display density which depends on the speed of the mouse movement. The introduction of random numbers increases the attractiveness of the obtained moving graphics because each mouse clicks made by the user generates different movements of letter elements on the screen. The described examples show only a small part of the possibilities provided by Processing in mobile typography programming. Such solutions contribute to the attractiveness of the content, also more impressively convey the message to consumers if they are used for marketing purposes. Mobile typography also finds its application in augmented reality with, for example, exhibits in museums, education, and entertainment. Processing is relatively easy to learn, so even beginners with knowledge of another programming language can easily manage and with a little effort to program interesting interactive solutions either in computer graphics or typography.

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