## LO-RES OUTLINED <br> DESIGNED BY ZUZANA LICKO



EMIGRE

## LO-RES OUTLINED DESIGNED BY ZUZANA LICKO

A single bit may seem insignificant - a lone pixel on a display screen, a single stitch in fabric - but arranged into bitmaps, as groups of pixels and through their underlying patterns, they can convey textures, shapes, shadows, and colors.

A single bit can be represented by a square on grid paper, a halftone dot in a photo, a loop of thread in fabric, a light emitting diode on a computer screen, a ceramic tile in a mosaic, to name a few. Each one carries its unique abilities to build and blend into something bigger. Our human perception is required to complete the process. Recognizing a smily face, or letterform created within an eight by eight grid, or perceiving the color yellow, blended from red and green light emitting diodes illuminated side by side, is some sort of magic, scientifically explainable, but not undoable by explanation.

This is what fascinates me about the building blocks of images, and how a small adjustment can change our perception. And how an image that changes when transferred from one medium to another reveals insight about its structure.

The idea behind this series of fantasy bitmaps began simply enough. Starting with the structure of Lo-Res Nine, a typeface that goes back to the very start of my type design career in 1984, I applied a series of outlines of varying weights and styles in order to transcend the impermiability of the solid square bitmap as the smallest building block unit. The outlining accentuates and wraps the tenuous bonds that exist wherever the square pixels meet at the corners. The corners share exactly one point, the

## EMIGRE

2

## LO-RES OUTLINED



Lo-Res Nine
Lo-Res Outlined Sixteenth
square to be filled to either side, so the pixels never actually touch. But the connection is implied, and through their aliased, jagged, saw-toothed manifestations, we perceive the implied diagonals and curves from these bitmaps and conjure up the letterforms that they represent.


When the square pixels are outlined, an armature is created, which has properties of its own. It can appear solid, perforated, or overlapping. Starting out with a thin outline, equal in weight to one sixteenth of the pixel, I then doubled the outline weight in subsequent permutations, until reaching half of the pixel size. I held off doubling the half to a whole, because that would simply fill the inside shape. Instead, I made the next outline equal to three quarters of the pixel size, as this reveals a skeleton of one quarter of the pixel size inside the armature. The outlining measurement lends the style name to each font permutation.

## EMIGRE

3

## LO-RES OUTLINED

SUBTRACTED



Double


Quadruple


Octuple


Solid Bold

Applying a similar outlining logic, but with multiple outlines of equal weight, I started with a double outline, which made each line equal to one quarter of the pixel size. Then, doubling the number of outlines with each permutation, Quadruple was made from four outlines of one eight of the pixel size, and Octuple from eight outlines of one sixteenth of the pixel size. A Solid Bold version was added to provide a solid background color for when letters are overlayed. Since they're all build on the same grid with the same internal structure, these letters can be overlayed to fill and complement each other in multiple variations as is demonstrated throughout this type specimen.


The next series of permutations was created with subtraction. I started by subtracting (deleting) the outside line from the three quarters single outlined version to reveal the one quarter skeleton, and continued applying the same process to the remaining Outlined fonts.

## EMIGRE

4

## LO-RES SUBTRACTED



## EMIGRE

5

## LO-RES WOVEN

Like all of the Lo-Res typefaces, these variants remain as bitmaps, though of a higher resolution, which makes them immediately applicable to weaving, embroidery, knitting, and other pixelated media that are built from a standardized unit or building block element. This is how the LoRes Woven fonts came to be.

$$
\begin{gathered}
\text { Outlined } \\
\text { Three Quarters } \\
\text { Three Quarters }
\end{gathered}
$$

By reimagining the outlined variants as woven structures, and by removing pixels to create the illusion of overlapping, the effect of weaving was conjured. This effect was applied to a selection of the Outlined fonts.

Three Quarters

Quarter


Quadruple


Octuple

Half

Double Extra
Quarter Filled

-

## EMIGRE

6

## LO-RES WOVEN MAZE

The Maze designs take their playfulness into the world of patterns with their abstracted letterforms, allowing the letters, when set without line spacing, to create dense patterns filling a square grid.


## EMIGRE

7

LO-RES OUTLINED
SIXTEENTH | THREE QUARTERS

LO-RES OUTLINED DOUBLE | OCTUPLE


## EMIGRE

9

LO-RES SUBTRACTED QUARTER | DOUBLE QUARTER

## LO-RES SUBTRACTED

DOUBLE FIVE SIXTEENTHS | OCTUPLE







## EMIGRE

11


## EMIGRE

12

LO-RES WOVEN EIGHT | QUADRUPLE











## EMIGRE

13

## LO-RES WOVEN

QUARTER FILLED | DOUBLE EXTRA

LO-RES WOVEN
MAZE | DOUBLE MAZE

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## EMIGRE

14


For a showing of the complete character sets of all Lo-Res Outlined fonts, please go to:
https://www.emigre.com/Fonts/Lo-Res-Outlined

EMIGRE
15

## LO-RES OUTLINED OVERLAPPING

To have ascenders and descenders perfectly touch or overlap when setting multiple lines of text, use leading in $5 \%$ increments of the point size. For example, 100 point type can have leading set to $95,90,85$, etc. This rule applies to all Outline, Subtracted and Woven fonts.


## EMIGRE

16

## LO-RES OUTLINED COMBINATIONS

Each capital A shown on this page is made by combining and overlaying two different fonts, selected from the Lo-Res Outlined and Lo-Res Subtracted families, using black and one color. The possibilities when adding additional font layers and colors are endless, as shown on the following pages.


## EMIGRE

17

## LO-RES WOVEN | MAZE

To create a solid block in the Maze fonts, use the underscore character to extend the background in single unit increments. To preserve the background pattern, always make the line spacing equal to the point size. Do not justify or track the Maze fonts.


## EMIGRE

18

## LO-RES SUBTRACTED GALLERY



## EMIGRE

19

LO-RES OUTLINED | SUBTRACTED GALLERY


Subtracted Double Three Eights / Outlined Solid Bold


Subtracted Double Quarter / Subtracted Octuple

## EMIGRE

20

LO-RES OUTLINED | SUBTRACTED GALLERY


Subtracted Double Eight / Subtracted Double Three Eights / Outlined Solid Bold


Subtracted Double Three Eights / Outlined Solid Bold

## EMIGRE

21

LO-RES OUTLINED | SUBTRACTED GALLERY


Outlined Half / Outlined Solid Bold


Subtracted Double Eight / Outlined Octuple

## EMIGRE

22

## LO-RES OUTLINED | SUBTRACTED GALLERY



Subtracted Double Eight / Outlined Solid Bold


Outlined Double / Subtracted Sixteenth Filled / Outlined Solid Bold


EMIGRE
23

LO－RES OUTLINED｜SUBTRACTED｜WOVEN

## GALLERY



##  7 TIN

## 距郡馱 

Outlined Three Quarters

## EMIGRE <br> 24

LO－RES OUTLINED
GALLERY


Outlined Quadruple

## EMIGRE

25

LO-RES SUBTRACTED | WOVEN


Subtracted Quadruple Filled / Woven Double Extra

## EMIGRE <br> 26

## LO-RES SUBTRACTED | WOVEN GALLERY



## EMIGRE

27

LO-RES WOVEN
GALLERY


Woven Three Quarters

## EMIGRE

28

LO-RES OUTLINED | WOVEN | MAZE | SUBTRACTED GALLERY


Woven Double Extra / Solid Bold


Woven Double Maze


EMIGRE
29

LO-RES OUTLINED
PATTERNS


## EMIGRE

30

LO-RES OUTLINED
PATTERNS


EMIGRE
31

## LO-RES OUTLINED | SUBTRACTED | WOVEN

 GALLERY

Woven Half / Woven Quadruple


Outlined Sixteenth / Woven Three Quarters

## EMIGRE

32

## WWW.EMIGRE.COM

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## + Ap

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