

Leaving Pixels Behind: A VECTOR WORKFLOW FOR DESIGNERS



TODD PARKER

filament group

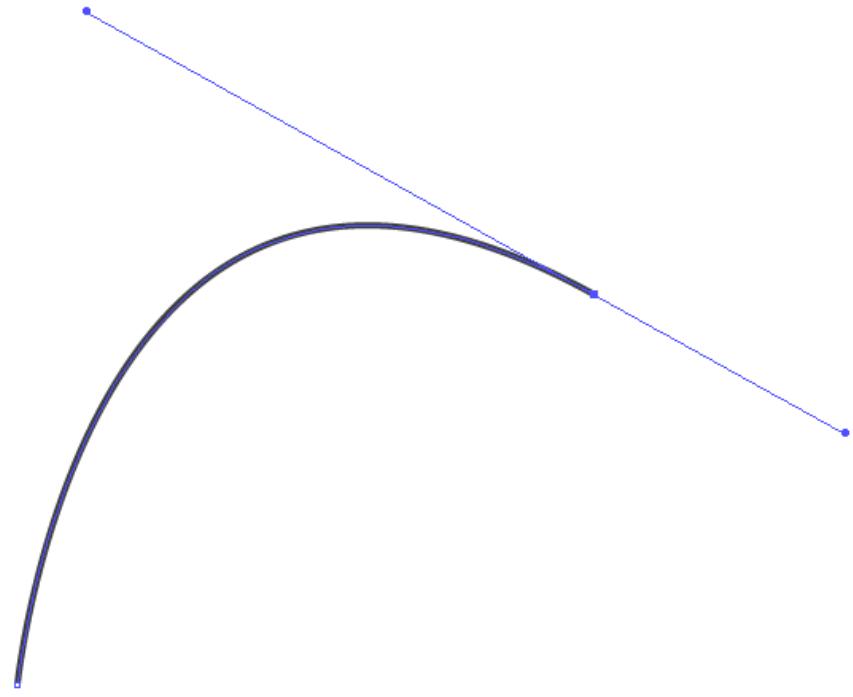


MAKE THE WEB WORK FOR

everyone

TOPICS

- I. Why go vector?
- II. SVG is awesome
- III. Creating SVGs in AI
- IV. Automating fallbacks
- V. Working in <code>



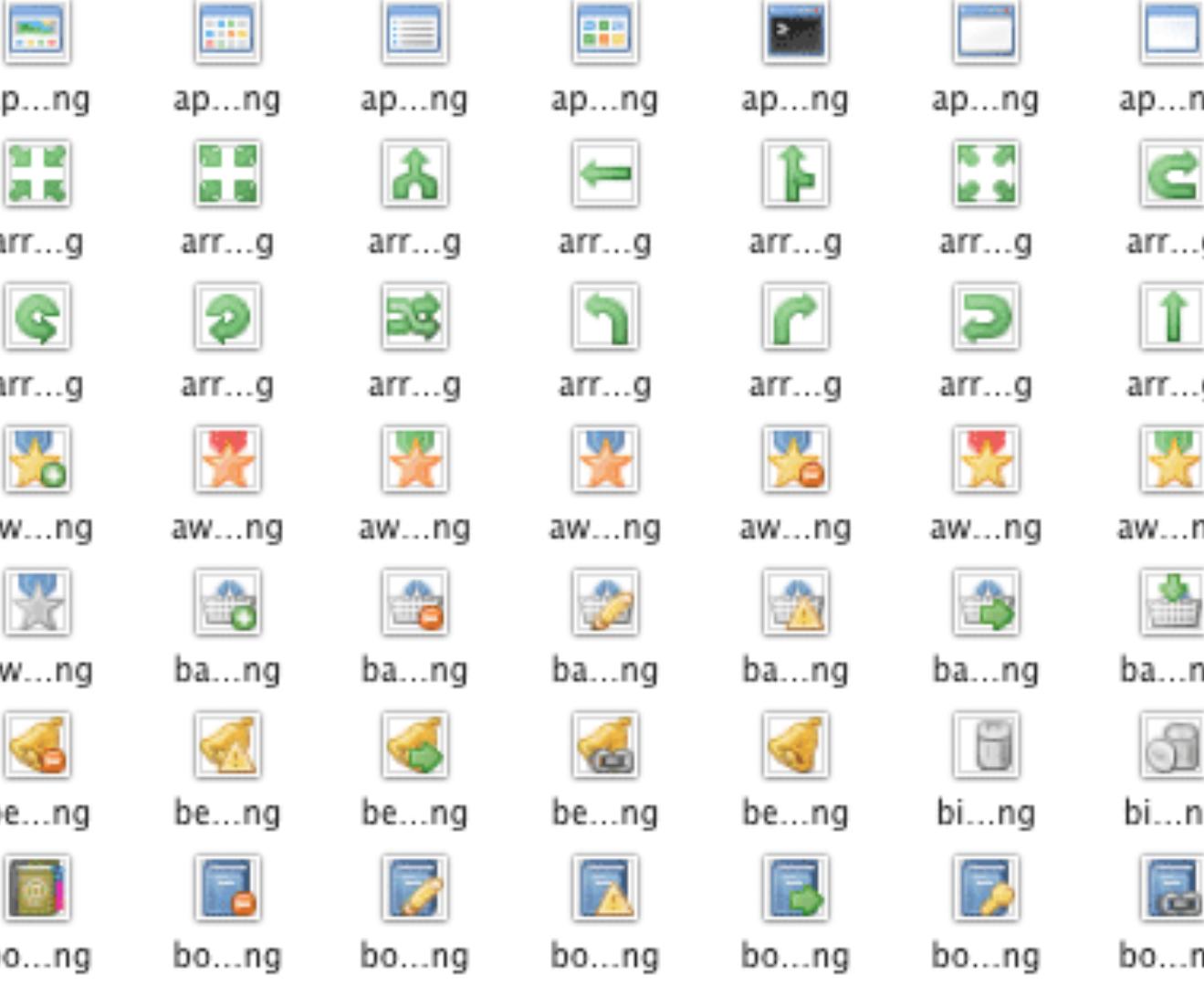
WHY GO

vector

THIS.



OLDEST SCHOOL



SPRITE LIKE A BOSS



RETINA-IZED

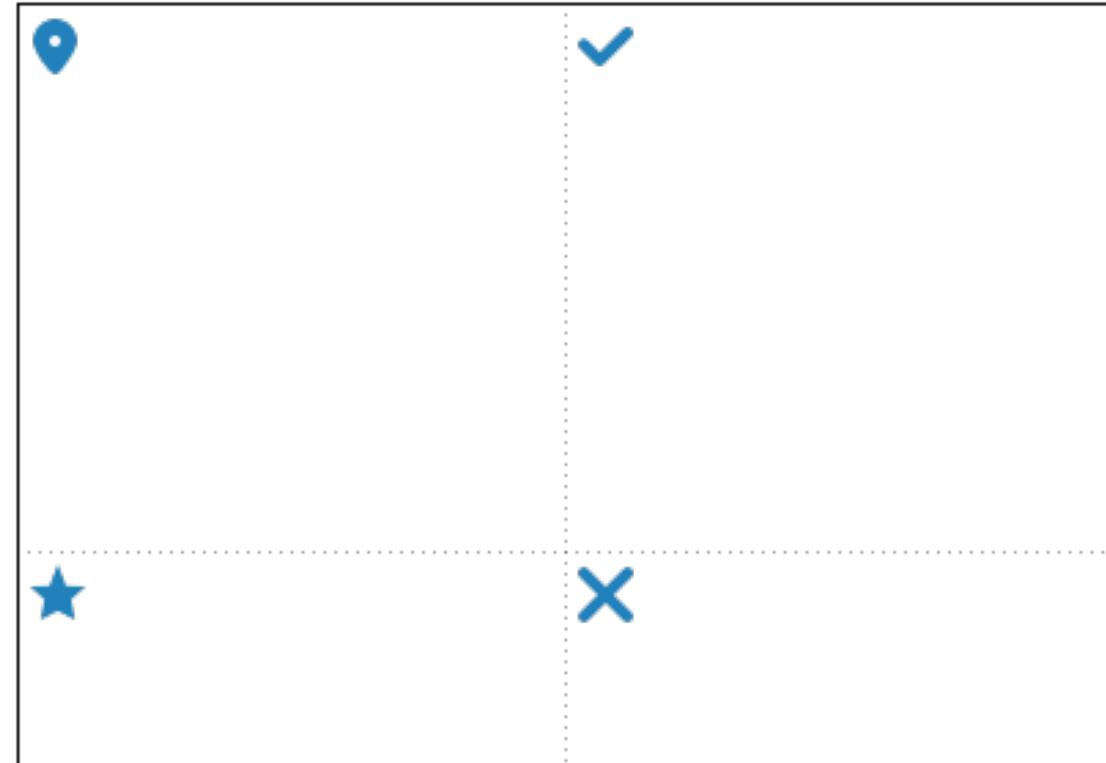
Retina CSS Sprite Example

via miekd.com

sprite.png



sprite@2x.png





“Samsung’s 2014 phones will feature 560 PPI displays – 880 PPI in 2015...”

1x...2x...6x...12x...



THE GENIUS HACK

icon fonts

Font Awesome

THE ICONIC FONT DESIGNED FOR BOOTSTRAP



Download

Version 4.0.3 · [GitHub Project](#) · [Old 3.2.1 Docs](#) · Created by [Dave Gandy](#)



<http://fortawesome.github.io/Font-Awesome/>

Over 9,000 ready-to-use icons

The greatest choice of icons on the web, from the best icon designers



Elusive icons - 291 Free Icons



Streamline Icons - 100 Free Icons



Minicons - 210 Free Icons





1524

Followers



20K

Likes



3000

Followers



HRITHIK

★ Profile activity

5

SINGLE COLOR



Njan gandarvan_song1



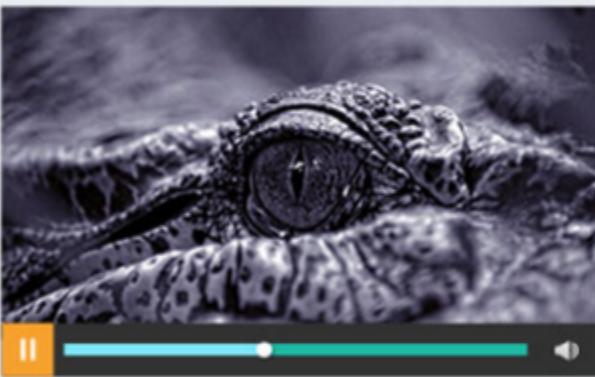
🎵 Njan gandarvan_song1

🎵 The don't care _jackson

🎵 03. Dangerous _jackson

OUR OFFICE

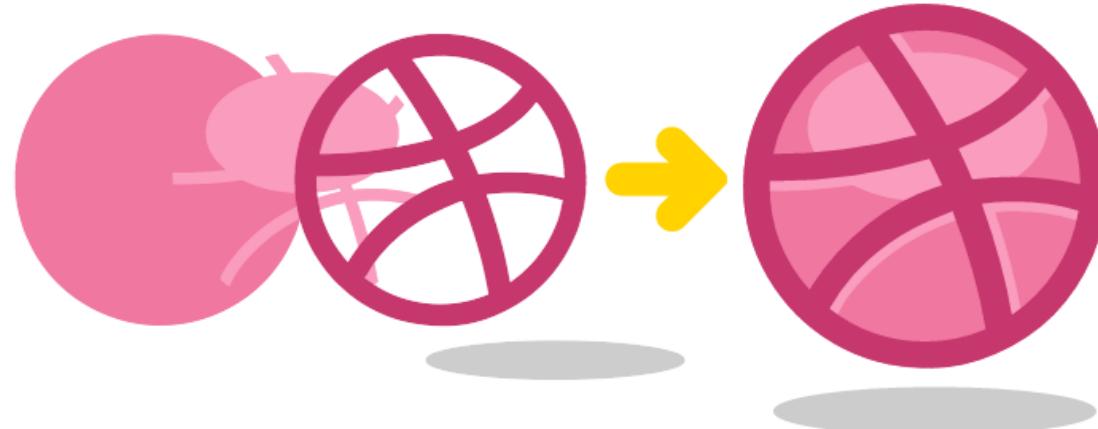
State, District



OUR TRAFIC OVERVIEW



NO LIMITS !!!





David Sleight

@stuntbox



Follow

Just had some UI for a table turn into peace signs and a pair of skis. Unicode issues w/ icon fonts ain't theoretical
cl.ly/image/1J0W0g1A...

Reply Retweet Favorite More

0

<https://twitter.com/stuntbox/status/426807768851681280>

0

UH-OH.



Twitter Support
@Support

□ Twitter users love tweeting emoji from now you can view these emoji on web! #emojifirst
□ □ □ □ □ □ □ □

12:42 PM - 2 Apr 2014

4,253 RETWEETS 2,379 FAVORITES

AT&T

5:45 PM

63%

Font Awesome



The iconic font designed for Twitter Bootstrap by Dave G



NO @FONT-FACE SUPPORT

Opera Mini - 261 million

Nokia XPress browser - 70 million

Blackberry 4 & 5 - stock browser - 20 million [1]

Android 2.1 - stock browser - 10 million [2]

Windows Phone 7 - 7.8 - 10-15 million [3]

Android 4 - UC Browser

Symbian 10 - Nokia Browser 8.3.1.4

WebOS - stock browser

Android 2.1 - Dolphin

YIKES

~370 million
devices don't
support @font-face



700 million
Total iOS devices
worldwide



ANDROID

1 billion
Total Android
devices worldwide

ICON FONTS NEED A FALBACK

- **When @font-face isn't supported**, icon fonts either appear as:
 - a random character (A, 4, +, etc.)
 - a cryptic symbol like  (sup. P.U.A.)
 - blank space (private use area)
- **Using on 'standard' unicode characters** (ex: '>') as a fallback produces wildly different symbols across devices and fonts when @font-face isn't supported. There are rarely 'safe' characters for most icons we use.

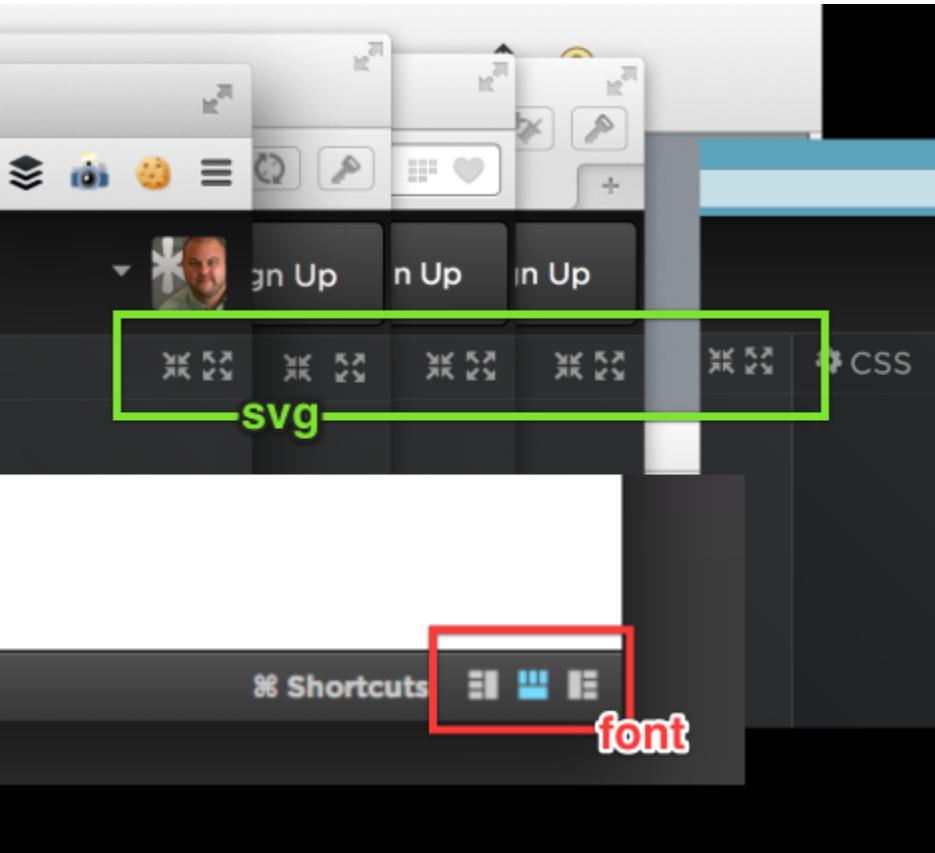
BULLETPROOF

BULLETPROOF

ICONICONS



CHRIS LIKES SVG



- Image crispness
- Positioning control
- Semantics
- Accessibility
- Ease of use
- Lack of browser quirks

A TRANSITIONAL TECHNIQUE

SIFR...cufón...

THE JOY OF

svg

FULL COLOR VECTORS



CSS STYLING



Theme

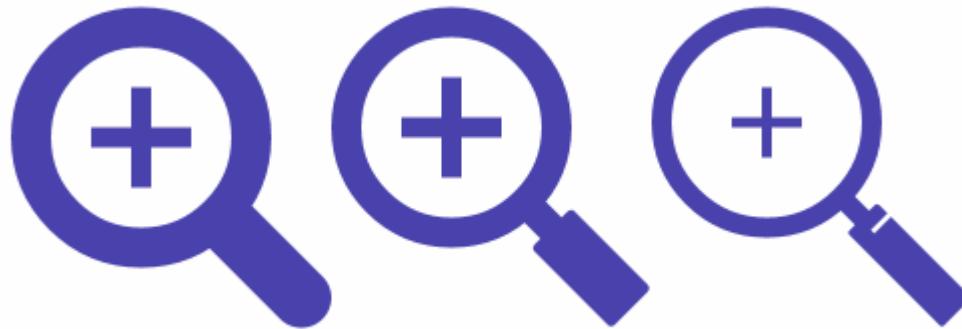
- Monochrome
- Slate**
- Sand
- X-Ray

Styling

Hairline

Hollow Rounded Line-caps

RESPONSIVE



OPTICAL CORRECTION

INTERACTIVE



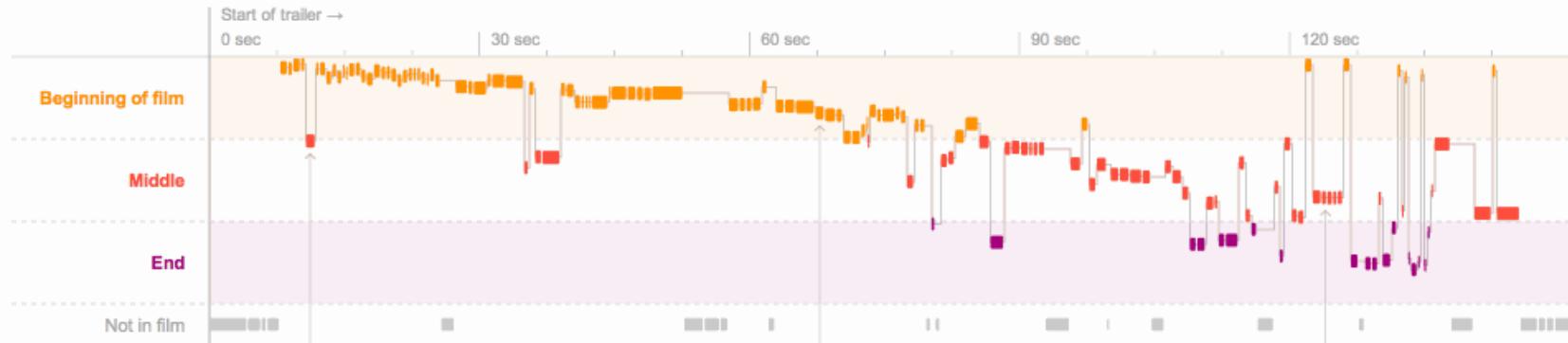
ILLUSTRATIONS

<http://product.voxmedia.com/2013/11/25/5426880/polygon-feature-design-svg-animations-for-fun-and-profit>

VISUALIZATIONS

Argo

The trailer for “Argo” balances two different tones, according to Mr. Garrett: thriller and Hollywood satire. “Thrillers have a very fast cutting style,” he said. “It’s a way of ratcheting up attention.” Shots are longer, on average, when the trailer turns to satire.



Bryan Cranston's character watches President Carter give an address on television; In the film, the television shows an address by an Iranian spokeswoman.

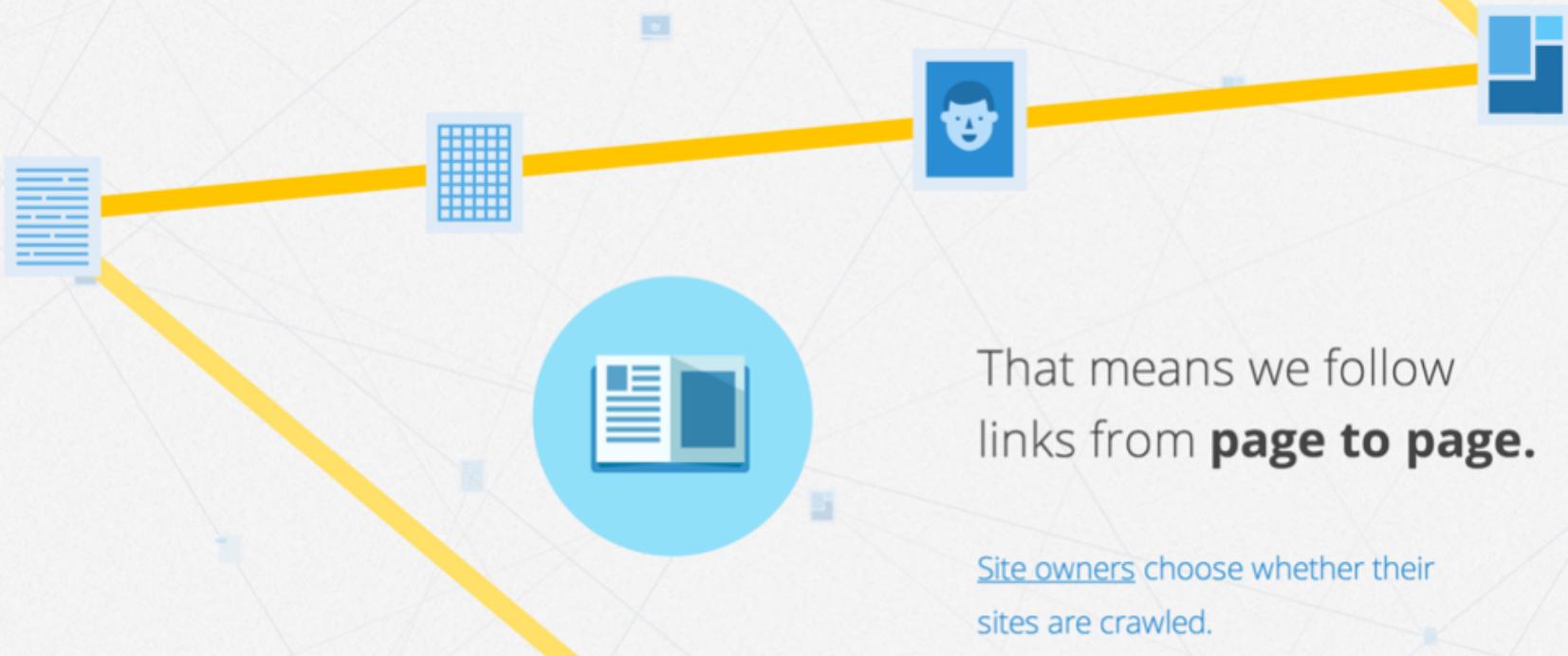
The Hollywood sign appears about halfway through the trailer. While intact in the trailer, the sign is shown in the disrepair of the 1970s in the film.

A scene showing the Americans surrounded by a crowd is bookended with shots from an earlier scene showing a much larger crowd.

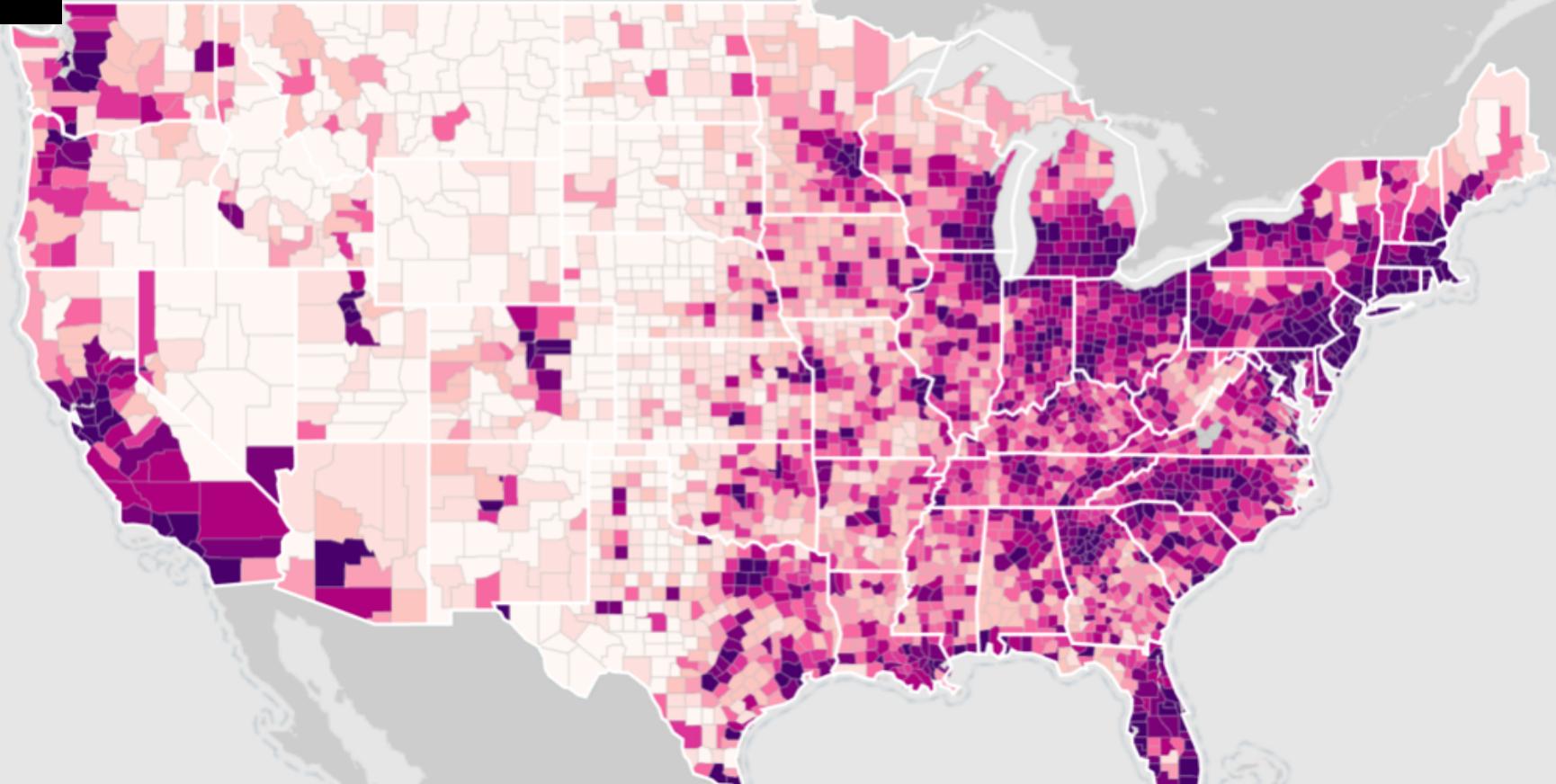
INFOGRAPHICS

Google navigates the web by

CRAWLING.



MAPS



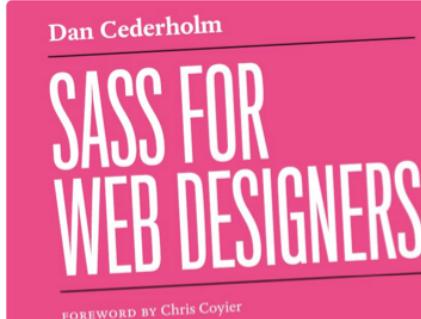
<http://d3js.org/>

BITMAPS



<http://www.smashingmagazine.com/2013/06/02/clown-car-technique-solving-for-adaptive-images-in-responsive-web-design/>

Image: <http://britandgrit.com/?p=4589>



Dan Cederholm

SASS FOR WEB DESIGNERS

foreword by CHRIS COYIER

From getting started to advanced techniques, Dan Cederholm shares the key to taking better control of your stylesheets—and how to easily insert the power of Sass into your daily workflow.

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by AARRON WALTER

[BUY](#)

ICON SETS GALORE



100 ICONS

Clear Icons

by
Appzgear



Education

by
Freepik



25 ICONS

Buildings

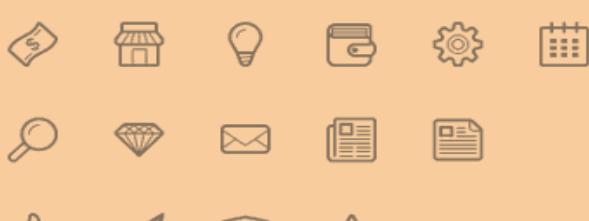
by
Freepik



16 ICONS

Cloud computing

by
Freepik



48 ICONS

Linecons

by



56 ICONS

Health

by

ICONIC



• × ■
The Noun Project

flaticon



Scalable Vector Graphics (SVG) is an **XML**-based **vector image format** for two-dimensional graphics with support for interactivity and animation. The SVG specification is an **open standard** developed by the **World Wide Web Consortium (W3C)**

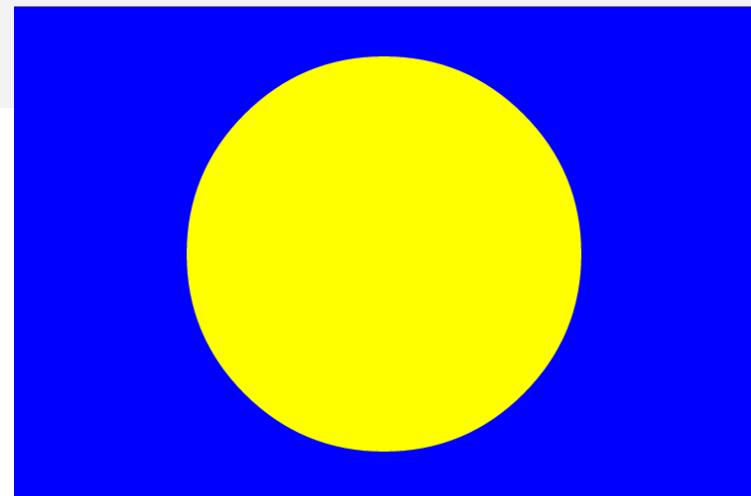
...since 1999.

SVGs ARE TEXT FILES

```
1  <?xml version="1.0" encoding="utf-8"?>
2
3  <!DOCTYPE svg PUBLIC "-//W3C//DTD SVG 1.1//EN"
.   "http://www.w3.org/Graphics/SVG/1.1/DTD/svg11.dtd">
4
5  <svg version="1.1" xmlns="http://www.w3.org/2000/svg"
.   xmlns:xlink="http://www.w3.org/1999/xlink" width="32" height="32"
.   viewBox="0 0 32 32">
6
7      <path d="M26.667 0h-21.333c-2.933 0-5.334 2.4-5.334 5.334v21.332c0
.   2.936 2.4 5.334 5.334 5.334l21.333-0c2.934 0 5.333-2.398
.   5.333-5.334v-21.332c0-2.934-2.399-5.334-5.333-5.334zM27.206
.   16h-5.206v14h-6v-14h-2.891v-4.58h2.891v-2.975c0-4.042 1.744-6.445
.   6.496-6.445h5.476v4.955h-4.473c-1.328-0.002-1.492 0.692-1.492 1.985l-0.007
.   2.48h6l-0.794 4.58z" fill="#000000" />
8
9  </svg>
10
```

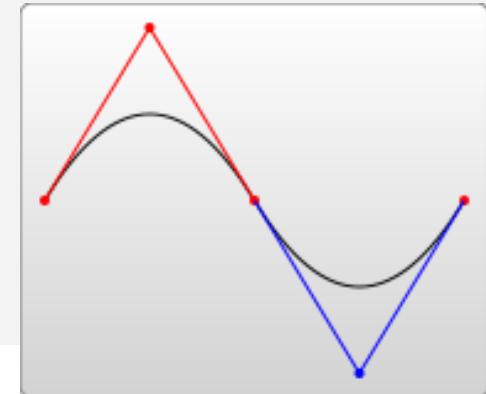
BASIC SHAPES

```
<svg>  
  <rect width="100%" height="100%" fill="blue" />  
  <circle cx="150" cy="100" r="80" fill="yellow" />  
</svg>
```



PATHS + GROUPS

```
<svg>
  <g id="foo">
    <path d="M10 80 Q 52.5 10, 95 80 T 180 80" stroke="black"
fill="transparent"/>
  </g>
</svg>
```



CSS YOUR SVGS



```
<svg class="icon-twitter">  
  <use xlink:href="#icon-twitter"></use>  
</svg>
```

```
<svg class="icon-twitter footer">  
  <use xlink:href="#icon-twitter"></use>  
</svg>
```

```
.footer {  
  fill: red;  
}
```

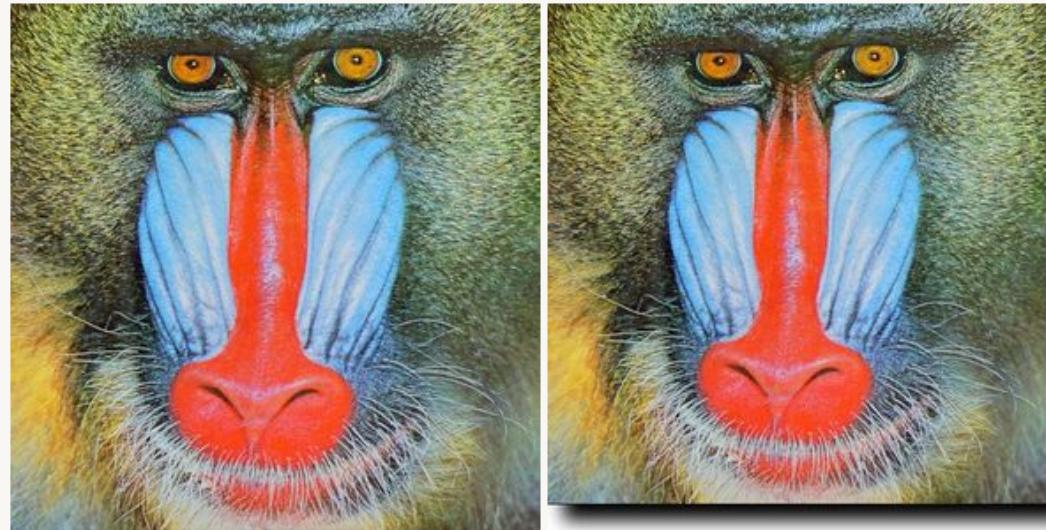
SVG IS MASSIVE

svg/attributes/color-interpolation-filters	svg/attributes/dominant-baseline	
svg/attributes/enable-background	svg/attributes/fill	svg/attributes/fill-opacity
svg/attributes/fill-rule	svg/attributes/flood-color	svg/attributes/flood-opacity
svg/attributes/glyph-orientation-horizontal	svg/attributes/glyph-orientation-vertical	svg/attributes/kerning
svg/attributes/lighting-color	svg/attributes/marker	svg/attributes/marker-end
svg/attributes/marker-mid	svg/attributes/marker-start	svg/attributes/mask
svg/attributes/pointers	svg/attributes/stop-color	svg/attributes/stop-opacity
svg/attributes/stroke	svg/attributes/stroke-dasharray	svg/attributes/stroke-dashoffset
svg/attributes/stroke-linecap	svg/attributes/stroke-linejoin	svg/attributes/stroke-miterlimit
svg/attributes/stroke-opacity	svg/attributes/stroke-width	svg/attributes/text-anchor
svg/browser support	svg/data types	svg/elements
svg/elements/a	svg/elements/circle	svg/elements/clipPath
svg/elements/defs	svg/elements/desc	svg/elements/ellipse
svg/elements/etextContent	svg/elements/feBlend	svg/elements/feColorMatrix

FILTERS & EFFECTS

Apply SVG filters & effects to vectors or bitmaps

[drop-shadow\(16px 16px 20px black\)](#)

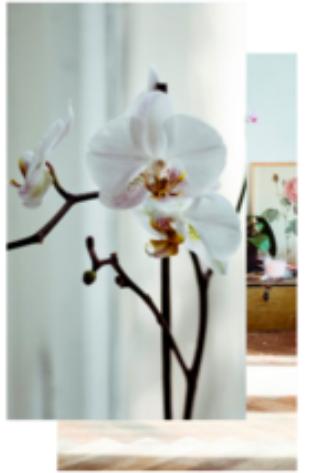


[blur\(10px\)](#)



BLEND MODES

normal



lighten



darker



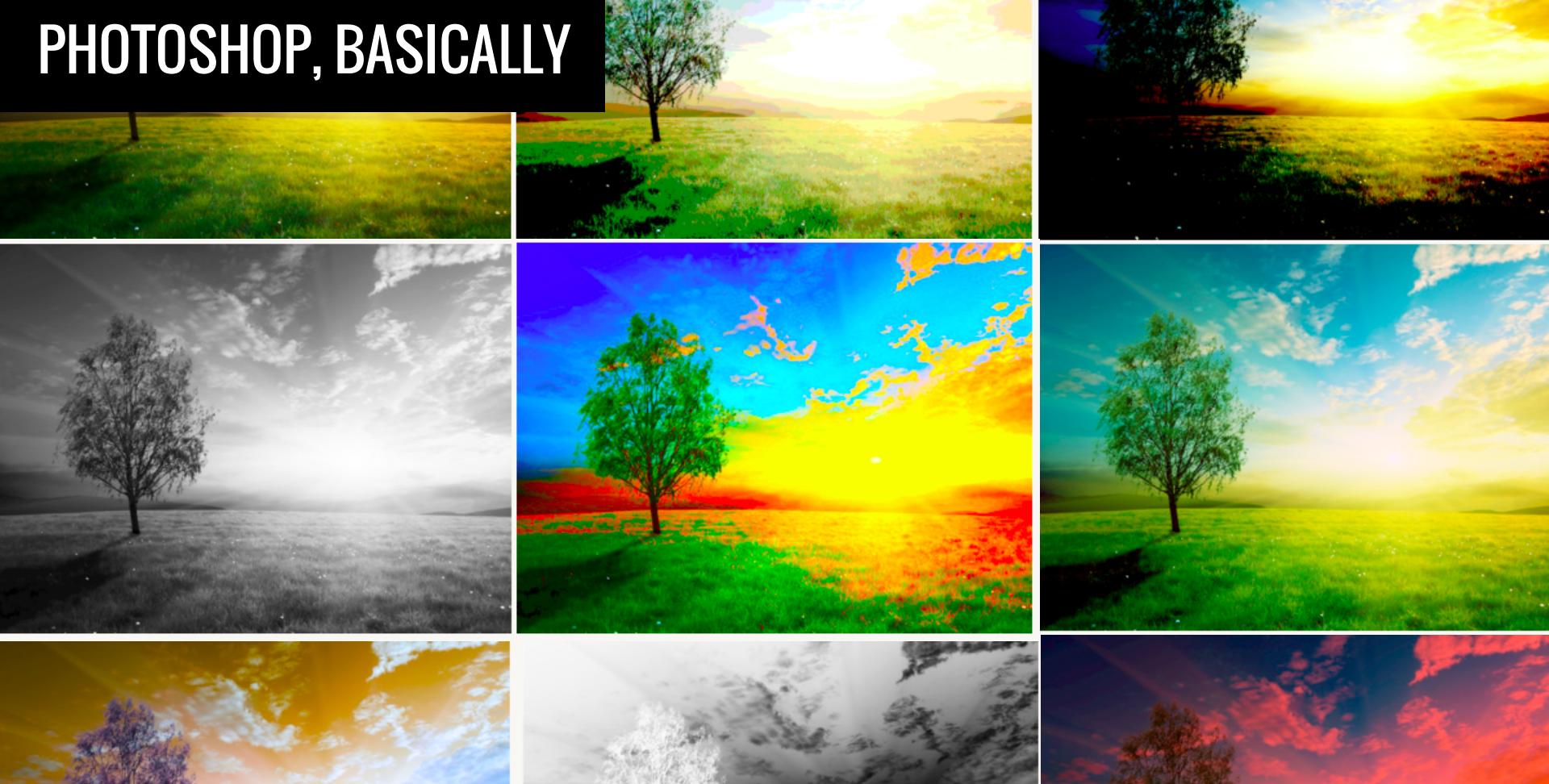
screen



multiply



PHOTOSHOP, BASICALLY



http://docs.webplatform.org/wiki/svg/tutorials/smarter_svg_filters

LEARN HERE



[WebPlatform.org](https://webplatform.org)



MDN MOZILLA
DEVELOPER
NETWORK

SOLD, BUT

caniuse?

SUPPORTS SVG

IE9+

Chrome 14+

Safari 4+

Firefox 3.6+

Opera 15+

iOS 3+

Android 4.0+

BlackBerry 10

NOPE

IE 6, 7, 8

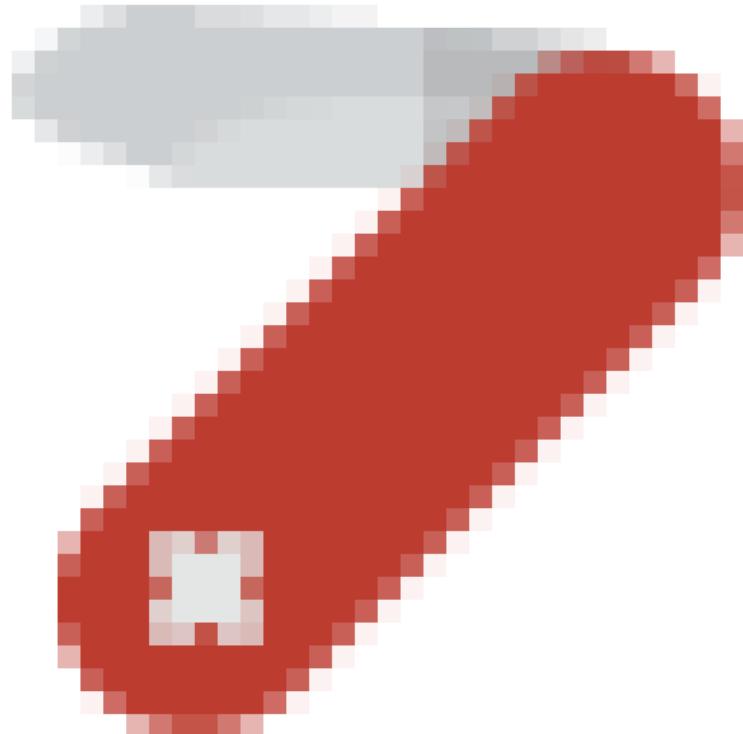
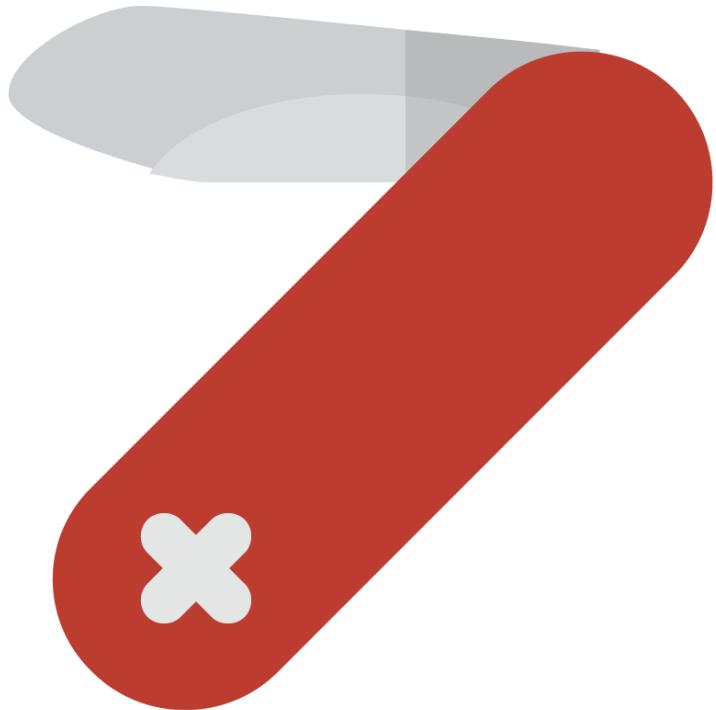
Android 1-2.3

Opera Mobile, Mini

Non-JS environments



CLEARLY, WE NEEDFallbacks



HOW TO DECIDE:

svg or bitmap?

IS IT A PHOTO?



HOW COMPLEX IS THE ARTWORK?



THIS IS 414kb



VISUAL EFFECTS?



DEFINITELY USE SVG



TEST & DECIDE



at&t



USE BITMAP

UNDERSTANDING

svg file sizes

FILE SIZE COMPARISON

2x PNG 8



12.6k

SVG



13.4k

BECAUSE SVGS ARE TEXT...

```
<!DOCTYPE svg PUBLIC "-//W3C//DTD SVG 1.1//EN" "http://www.w3.org/Graphics/SVG/1.1/DTD/svg11.dtd">

<svg version="1.1" xmlns="http://www.w3.org/2000/svg" x="0px" y="0px" width="18.398px" height="16px">

    <g>
        <path fill="#468100" d="M10.993,14.72H8.541L4.04,9.354H1.884V5.366H-1.891V1.22H3.663C0.812,0,1.497,0.04,2.048,0.127C6.253,1.43,6.775,1.629,7.271,1.938C7.765,2.243,8.16,2.631,8.45,3.105C0.288,0.48,0.432,1.072,0.432,1.778C0,0.991-0.264,1.821-0.793,2.484C7.565,8.03,6.842,8.523,5.939,8.844L10.993,14.72z M6.908"/>
    </g>

    <polygon fill="#468100" points="17.426,7.916 16.286,7.916 16.051,7.916 16.051,14.523 11.761,14.523 11.761,7.916 11.049,7.916 9.662,7.916 9.414,7.916 13.887,1.418 18.398,7.916 ">

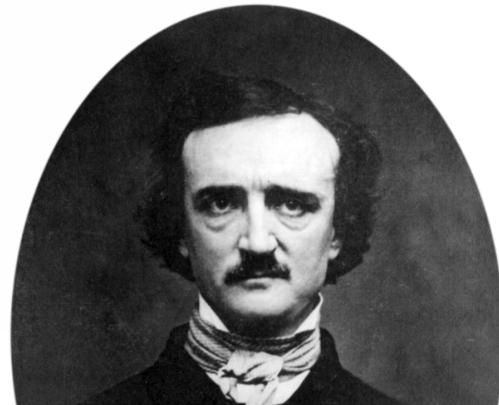
```

</svg>

...THEY CAN BE GZIP'd

```
bork@kiwi:~/work/hackerschool/gzip.jl$ julia gunzip.jl raven.txt.gz
Once upon a midnight dreary, while I {pon}dered weak an{d wea}{ry,}
Over many{ a }quaint{ and }curious volume of forgotten lore,
W{hile I }nodded, n{ear}ly napping, su{dde}n{ly }th{ere} ca{me }a t{apping,}
A
```

I



SVGS CAN COMPRESS 60-80%



Good Fair Limited Expansion

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd"><html xmlns="http://www.w3.org/1999/xhtml" dir="ltr" lang="en" id="vbulletin_html"><head><meta http-equiv="Content-Type" content="text/html; charset=utf-8" /><meta id="e_vb_meta_burl" name="vb_meta_burl" content="http://encode.ru" /><base href="http://encode.ru/" /><!--[if IE]></base><![endif]--><meta name="generator" content="vBulletin 4.2.2" /><link rel="shortcut icon" href="favicon.ico" /><link rel="apple-touch-icon" sizes="114x114" href="favicon114.png" /><meta name="keywords" content="compression, data compression, zip, rar, ace, 7zip, gzip, bzip2, paq, paq6, paq7, paq8, paq9, bzip" /><meta name="description" content="Encode's Forum" /><script type="text/javascript" src="http://yui.yahooapis.com/combo?2.9.0/build/yuiloader-dom-event/yuiloader-dom-event.js&2.9.0/build/connection/connection-min.js"></script><script type="text/javascript"><!--<if (typeof YAHOO === 'undefined') // Load ALL YUI Local-->{document.write('<script type="text/javascript" src="http://yuiloader.com/combo?2.9.0/build/yuiloader-local-local-min.js"></script>'))--></if--></script>
```

BITMAPS, NOT SO MUCH

Good Fair Limited Expansion



FILE SIZE COMPARISON

2x PNG 8



12.6k

SVG



13.4k

FILE SIZE COMPARISON

2x PNG 8



12.6k

SVG



3.8k GZIPPED

VECTOR OR BITMAP?

- + IS IT A PHOTO?
- + ILLUSTRATION COMPLEXITY
- + VISUAL EFFECTS / LEVEL OF REALISM
- + FILE SIZE OF GZIP'D SVG vs. 2X BITMAP



CREATING vectors

POPULAR TOOLS



Sketch

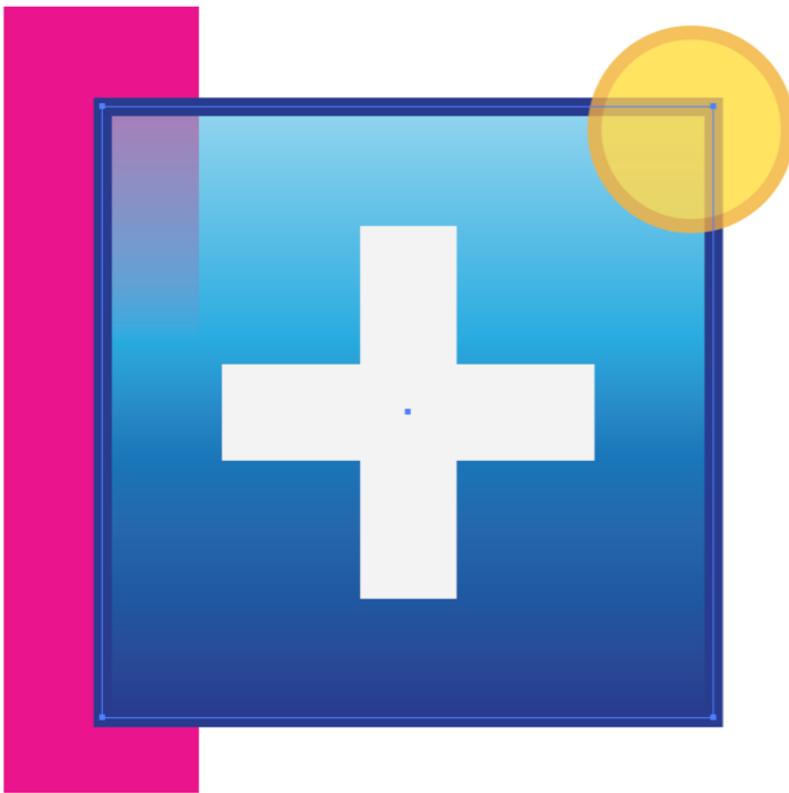
ILLUSTRATOR

do's and don'ts

USE FILLS, GRADIENTS, STROKES



OPACITY: OBJECTS + GRADIENT STEPS



ROUNDED CORNERS

EFFECT

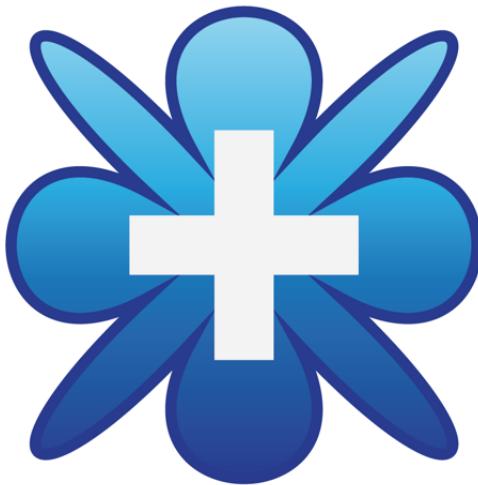


LIVE CORNERS

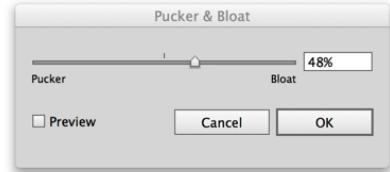


EFFECT > PATH & TRANSFORM

ILLUSTRATOR



OUTPUT

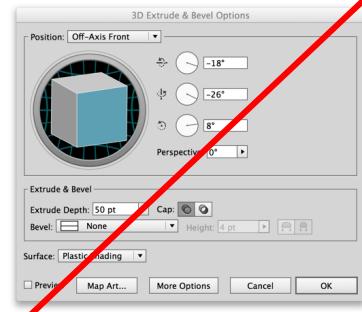


AVOID 3D EFFECTS

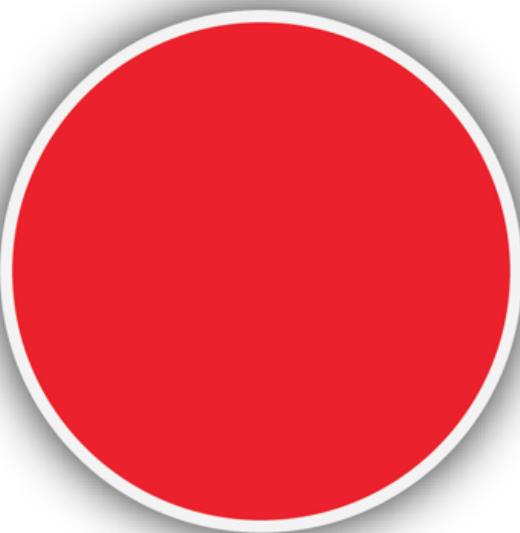
ILLUSTRATOR



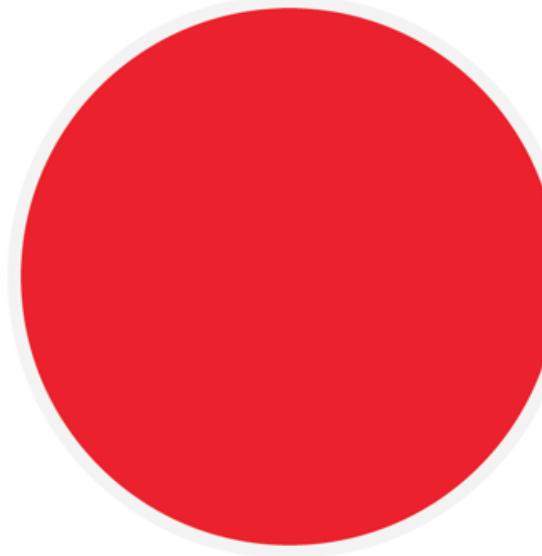
OUTPUT



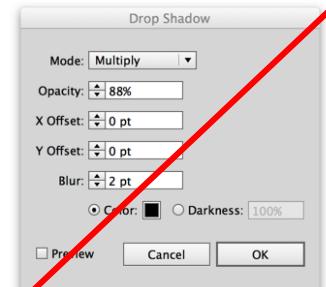
AVOID DROP SHADOWS



13k



0.5k



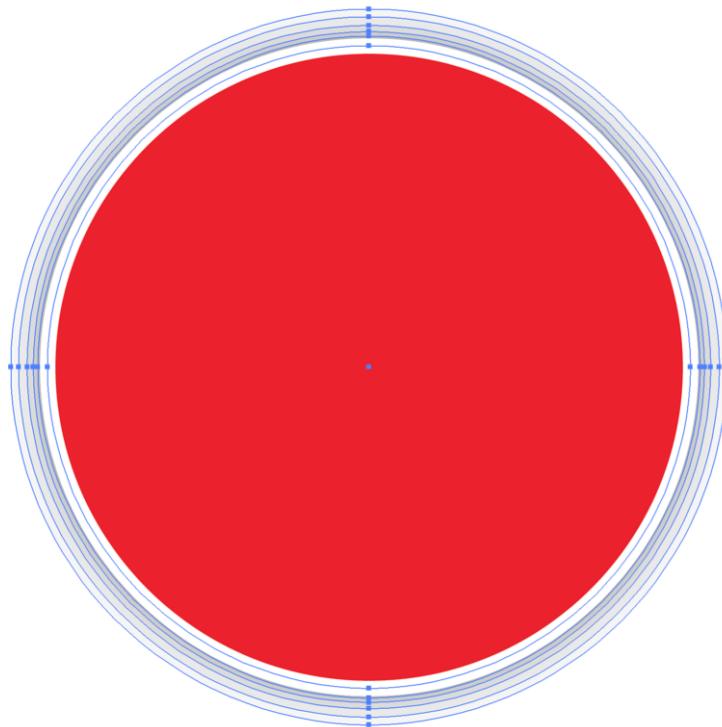
RASTERIZED SHADOW

EMBEDDED BITMAP

A black and white portrait of a man with short hair and a mustache. He is looking slightly to his left. The image is covered with a large, semi-transparent watermark that reads "BEDDED MAP" in a bold, sans-serif font. The watermark is oriented vertically along the right side of the frame.

“FAUX” SHADOW

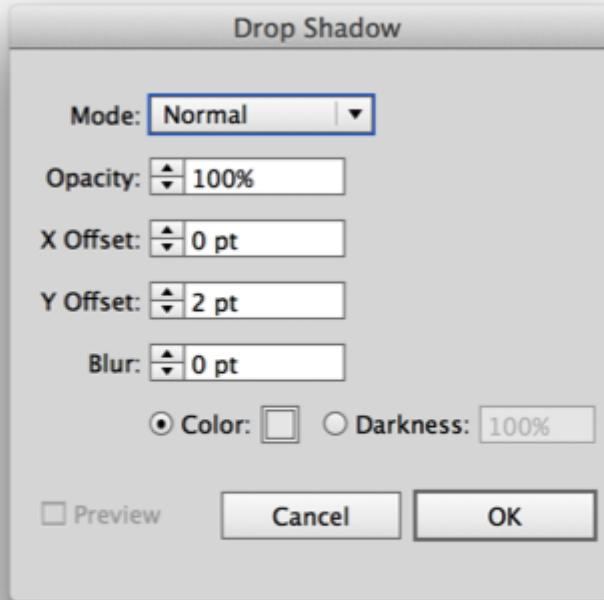
ADDS ~300 bytes



“FLAT” SHADOW



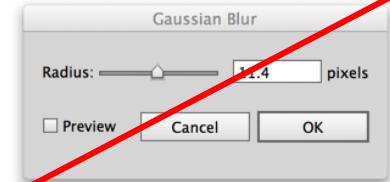
NO OPACITY OR BLUR!



AVOID BLUR

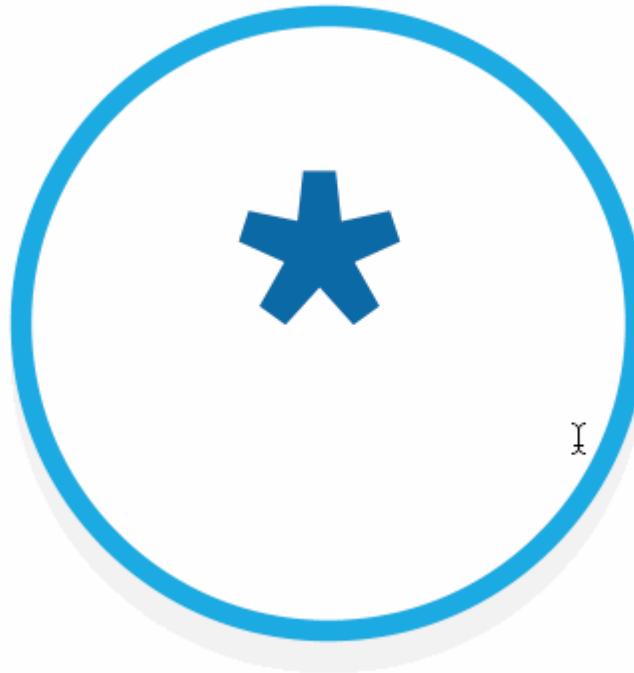


64k EMBEDDED BITMAP



Use SVG's gaussian
blur filter for this.

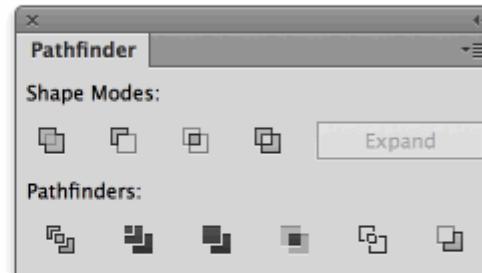
OUTLINE TEXT



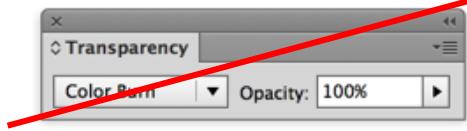
IF NOT OUTLINED:

```
<text font-family="'SourceSansPro-Bold'" font-size="10">?</text>
```

PATHFINDER > UNITE

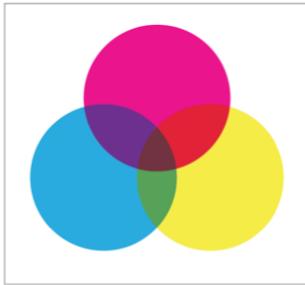


AVOID BLEND MODES

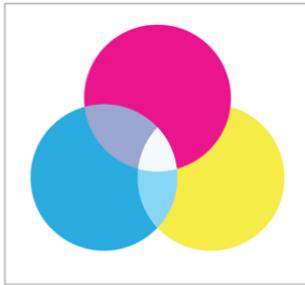


ILLUSTRATOR

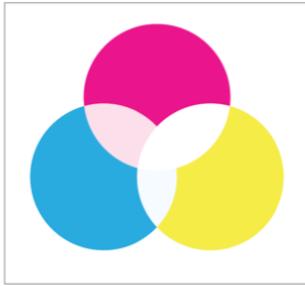
MULTIPLY



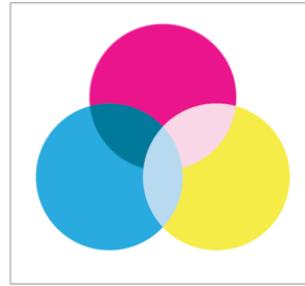
OVERLAY



SCREEN

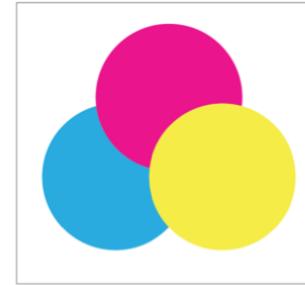


LUMINOSITY

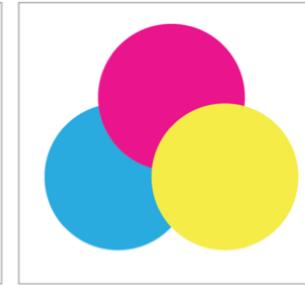


SVG OUTPUT

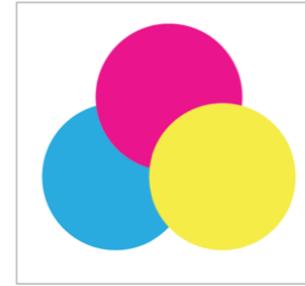
MULTIPLY



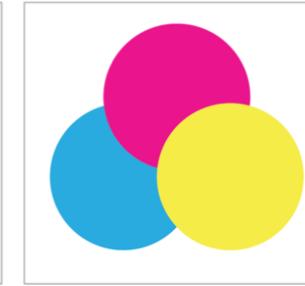
OVERLAY



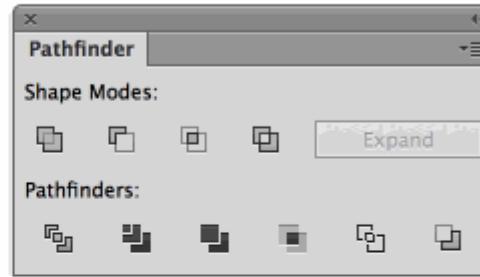
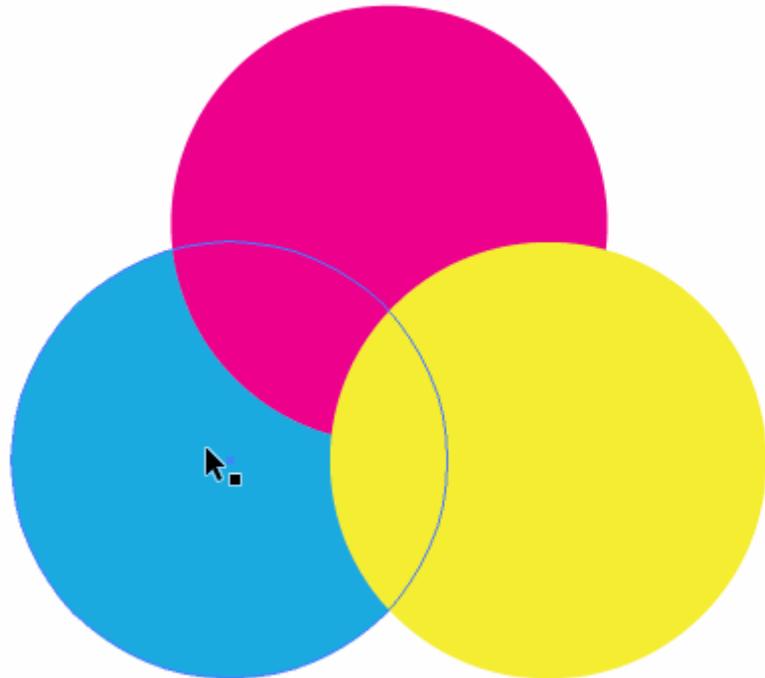
SCREEN



LUMINOSITY

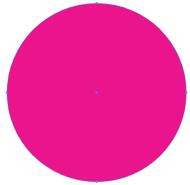


RECREATE with PATHFINDER > INTERSECT

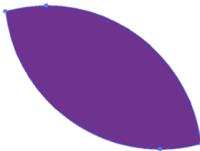


Select objects > copy >
paste in place > apply
intersect

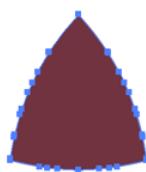
SIMPLER SHAPES FTW



```
<circle fill="#EC008B" cx="23.5" cy="42.7" r="18.2"/>
```

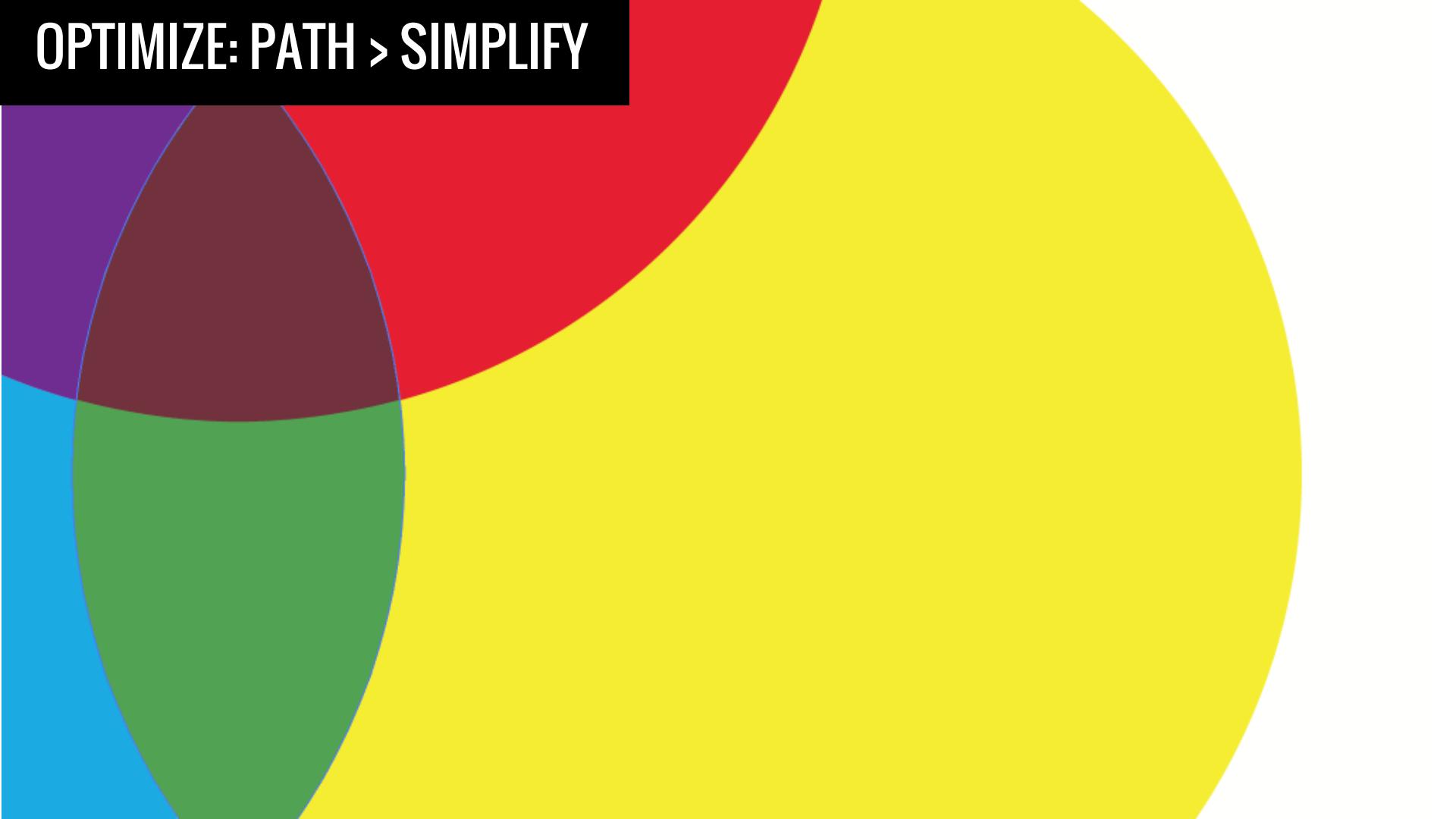


```
<path fill="#6F2D8F" d="M32,40.5c1.5,0.4,3.1,0.7,4.8,0.7  
c9.3,0,16.9-7,18-16c-1.5-0.4-3.1-0.7-4.8-0.7C40.  
7,24.5,33.1,31.5,32,40.5z"/>
```



```
<path fill="#71323E" d="M41.5,40.4c-0.1-0.5-0.1-1-0.3-1.5c0-0.1,0-0.1,0-0.2c-0.1-  
0.5-0.2-0.9-0.4-1.4c0-0.1-0.1-0.2-0.1-0.4c-0.1-0.4-0.3-0.8-0.4-1.2c-0.1-0.2-0.2-0.5-  
0.3-0.7c-0.1-0.3-0.2-0.5-0.4-0.8c-0.2-0.5-0.5-0.9-0.8-1.3c0,0,0,0,0-0.1c-0.6-0.9-  
1.3-1.8-2-2.6c-0.8,0.8-1.4,1.7-2,2.6c0,0,0,0,0c-0.3,0.4-0.5,0.9-0.8,1.3c-0.1,0.2-  
0.2,0.5-0.4,0.8c-0.1,0.2-0.2,0.5-0.3,0.7c-0.2,0.4-0.3,0.8-0.4,1.2c0,0.1-0.1,0.2-  
0.1,0.4c-0.1,0.5-0.3,0.9-0.4,1.4c0,0.1,0,0.1,0,0.2c-0.1,0.5-0.2,1-0.3,1.5c0,  
0,0,0.1,0,0.1c0.7,0.2,1.4,0.3,2,0.4c0.2,0,0.4,0.1,0.6,0.1c0.2,0,0.5,0.1,0.7,0.1c0.  
5,0,1,0.1,1.5,0.1s1,0,1.5-0.1c0.2,0,0.5,0,0.7-0.1c0.2,0,0.4-0.1,0.6-0.1c0.7-0.1,1.4-  
0.3,2-0.4C41.5,40.4,41.5,40.4,41.5,40.4z"/>
```

OPTIMIZE: PATH > SIMPLIFY

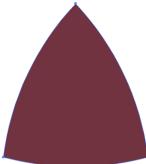


BEFORE - 1.75k file



```
<path fill="#71323E" d="M41.5,40.4c-0.1-0.5-0.1-1-0.3-1.5c0-0.1,0-0.1,0-0.2c-0.1-0.5-0.2-0.9-0.4-1.4c0-0.1-0.1-0.2-0.1-0.4c-0.1-0.4-0.3-0.8-0.4-1.2c-0.1-0.2-0.2-0.5-0.3-0.7c-0.1-0.3-0.2-0.5-0.4-0.8c-0.2-0.5-0.5-0.9-0.8-1.3c0,0,0,0,0-0.1c-0.6-0.9-1.3-1.8-2-2.6c-0.8,0.8-1.4,1.7-2,2.6c0,0,0,0,0c-0.3,0.4-0.5,0.9-0.8,1.3c-0.1,0.2-0.2,0.5-0.4,0.8c-0.1,0.2-0.2,0.5-0.3,0.7c-0.2,0.4-0.3,0.8-0.4,1.2c0,0.1-0.1,0.2-0.1,0.4c-0.1,0.5-0.3,0.9-0.4,1.4c0,0.1,0,0.1,0,0.2c-0.1,0.5-0.2,1-0.3,1.5c0,0,0,0.1,0,0.1c0.7,0.2,1.4,0.3,2,0.4c0.2,0,0.4,0.1,0.6,0.1c0.2,0,0.5,0.1,0.7,0.1c0.5,0,1,0.1,1.5,0.1s1,0,1.5-0.1c0.2,0,0.5,0,0.7-0.1c0.2,0,0.4-0.1,0.6-0.1c0.7-0.1,1.4-0.3,2-0.4C41.5,40.4,41.5,40.4,41.5,40.4z"/>
```

AFTER - 1.18k file



```
<path fill="#71323E" d="M43.7,49.5c-0.5-3.8-2.2-7.3-4.8-10.1c-2.6,2.8-4.3,6.4-4.8,10.2c3.1,0.8,6.4,0.8,9.5,0C43.7,49.6,43.7,49.6,43.7,49.5C43.6,49,43.7,49.6,43.7,49.5z"/>
```

WHAT WORKS

- Multiple elements, grouping
- Colors + gradients
- Fill + strokes
- Opacity (on gradient stops too)
- Rounded corners (effect or smart)
- 2D Transforms (pucker, bloat)
- Flat drop shadows



THINGS TO AVOID

- Blurred drop shadows*
- Gaussian blur effect*
- 3D effects
- Blend modes (multiply, luminosity)
- Embedding fonts
- Overly complex paths

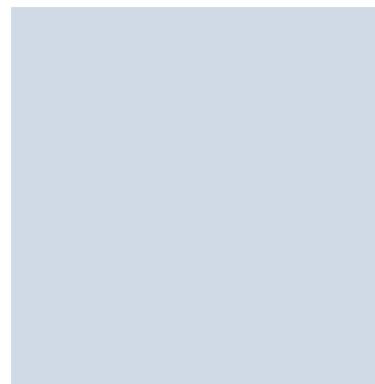
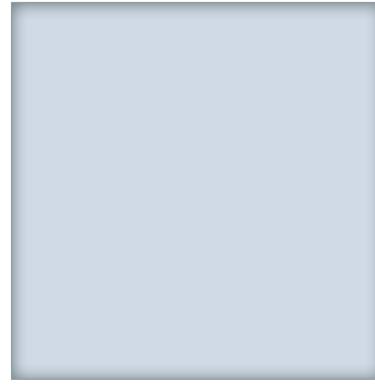
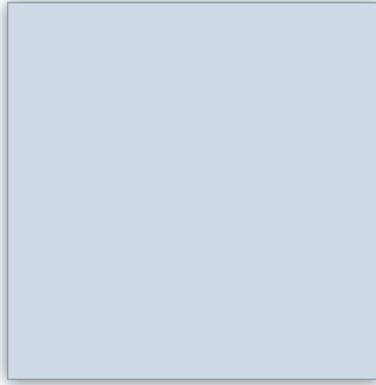


* SKETCH IS SMARTER



Sketch

SVG Filters for blur, shadow, reflection



FILTERS, NOT BITMAPS

version="1.1" xmlns="http://www.w3.org/2000/svg" xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:sketch="http://sketching.com/sketch" -->

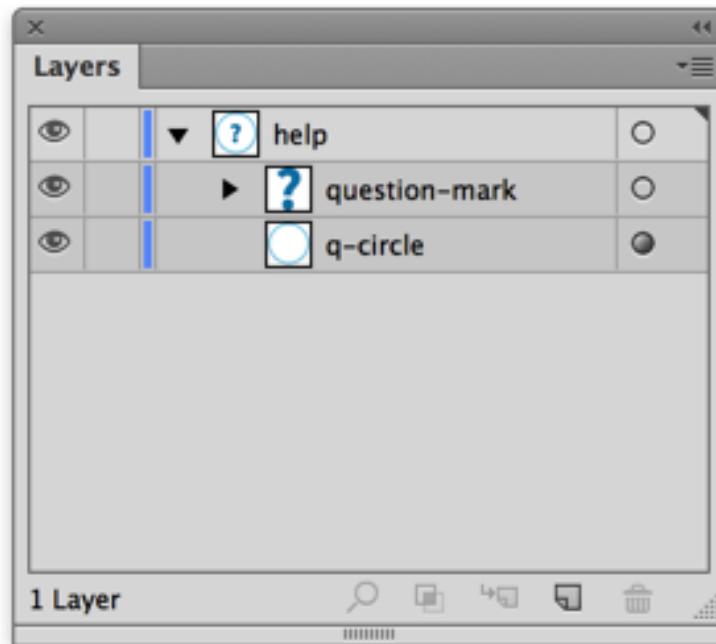
```
6
7 <defs>
8   <filter x="-50%" y="-50%" width="200%" height="200%" filterUnits="objectBoundingBox" id="filter-1">
9     <feOffset dx="0" dy="2" in="SourceAlpha" result="shadowOffsetOuter1"></feOffset>
10    <feGaussianBlur stdDeviation="7.5" in="shadowOffsetOuter1" result="shadowBlurOuter1"></feGaussianBlur>
11    <feColorMatrix values="0 0 0 0 0 0 0 0 0 0 0 0 0 0 0.35 0" in="shadowBlurOuter1" type="matrix" result="shadowMatrixOuter1"></feColorMatrix>
12    <feMerge>
13      <feMergeNode in="shadowMatrixOuter1"></feMergeNode>
14      <feMergeNode in="SourceGraphic"></feMergeNode>
15    </feMerge>
16  </filter>
17
18  <filter x="-50%" y="-50%" width="200%" height="200%" filterUnits="objectBoundingBox" id="filter-2">
19    <feOffset dx="0" dy="1" in="SourceAlpha" result="shadowOffsetInner1"></feOffset>
20    <feGaussianBlur stdDeviation="7.5" in="shadowOffsetInner1" result="shadowBlurInner1"></feGaussianBlur>
21    <feComposite in="shadowBlurInner1" in2="SourceAlpha" operator="arithmetic" k2="-1" k3="1" result="shadowInnerInner1"></feComposite>
22    <feColorMatrix values="0 0 0 0 0 0 0 0 0 0 0 0 0 0 0.35 0" in="shadowInnerInner1" type="matrix" result="shadowMatrixInner1"></feColorMatrix>
23    <feMerge>
24      <feMergeNode in="SourceGraphic"></feMergeNode>
25      <feMergeNode in="shadowMatrixInner1"></feMergeNode>
26    </feMerge>
27  </filter>
28
29  <filter x="-50%" y="-50%" width="200%" height="200%" filterUnits="objectBoundingBox" id="filter-3">
30    <feGaussianBlur stdDeviation="10" in="SourceGraphic" result="blur"></feGaussianBlur>
31  </filter>
32 </defs>
33
34 <g id="Page-1" stroke="none" stroke-width="1" fill="none" fill-rule="evenodd" sketch:type="MSPage">
35   <rect id="Rectangle-1" stroke="#979797" fill="#D8D8D8" filter="url(#filter-1)" sketch:type="MSShapeGroup" x="20" y="13" width="316" height="320"></rect>
36   <rect id="Rectangle-2" stroke="#979797" fill="#D8D8D8" filter="url(#filter-2)" sketch:type="MSShapeGroup" x="379" y="13" width="316" height="320"></rect>
37   <rect id="Rectangle-3" fill="#D8D8D8" filter="url(#filter-3)" sketch:type="MSShapeGroup" x="20" y="378" width="316" height="320"></rect>
38   <rect id="Rectangle-4" fill="#D8D8D8" sketch:type="MSShapeGroup" x="379" y="378" width="316" height="320"></rect>
39 </g>
40 </svg>
```

ILLUSTRATOR

exporting

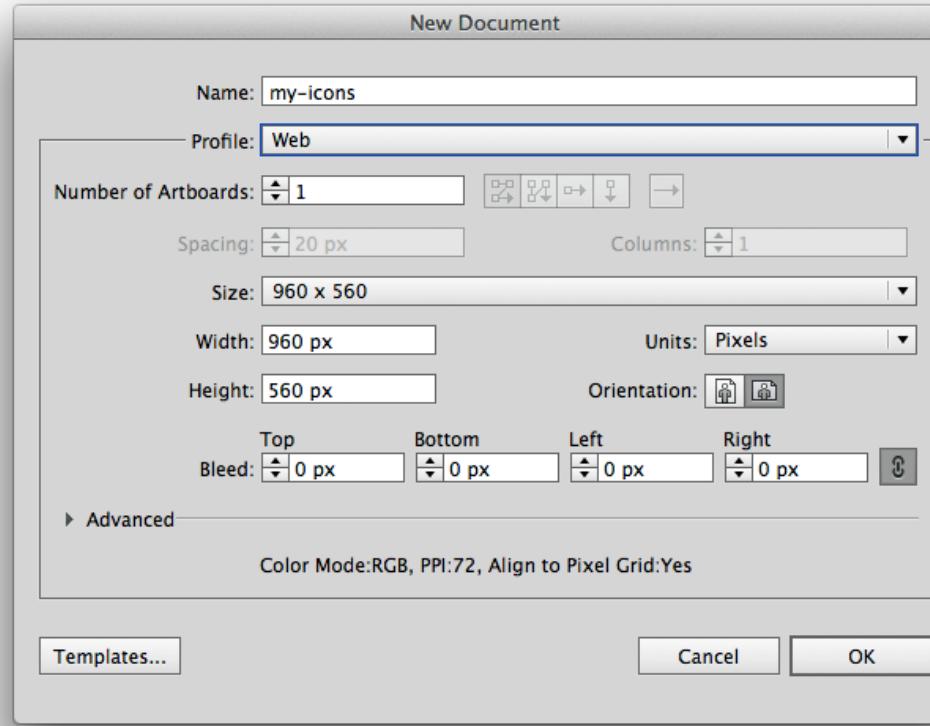


NAMED LAYERS >> ID's

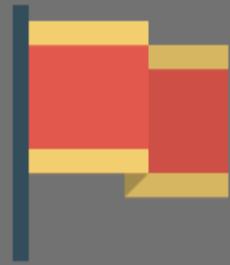


```
<svg version="1.1" id="help">  
  
<g id="q-circle">  
  <g>  
    <circle fill="#E5E5E5" cx="304.4" cy="396.1" r="10" />  
  </g>  
  <g>  
    <circle fill="#FFFFFF" cx="304.4" cy="394.1" r="10" />  
  </g>  
</g>  
  
</svg>
```

START WITH A NEW AI FILE



ARTBOARDS FOR EACH ICON



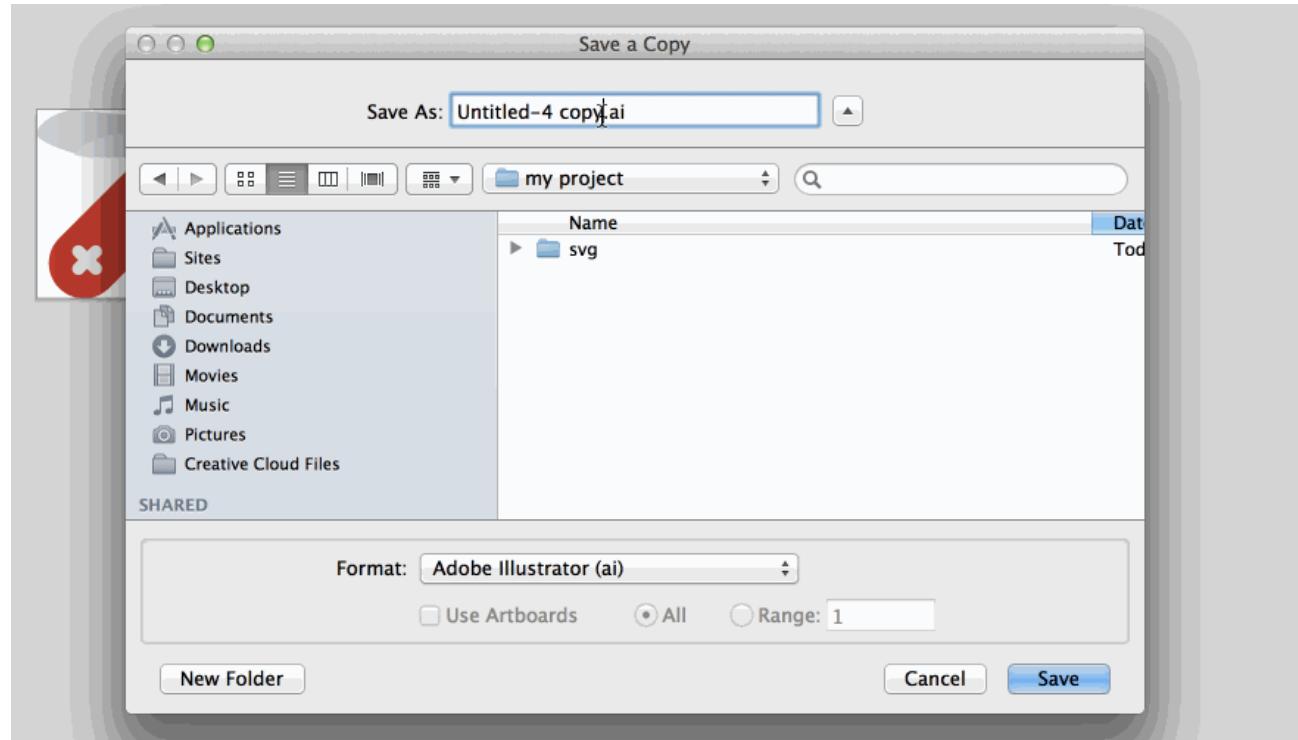
File Edit View Insert Tools Window Help Name: Artboard 2 X: -110.32 pt Y: 395.14 pt W: 46.9 pt H: 30.97 pt Artboards: 1

SAVE A COPY...

File Edit Object Type Select

New... ⌘N
New from Template... ⌘⇧N
Open... ⌘O
Open Recent Files ►
Browse in Bridge... ⌘⌥O

Close ⌘W
Save ⌘S
Save As... ⌘⇧S
Save a Copy... ⌘⇧S
Save as Template...
Save for Web... ⌘⇧S
Save Selected Slices...
Revert ⌘Z



WAT

SVG

- Adobe CEF
- SVG
- Convert to outline

Style Elements

- Presentation Attributes
- Style Attributes
- Style Attributes (Entity References)
- Style Elements

SVG Options

SVG Profiles: **SVG 1.1**

Fonts

Type: **SVG**

Subsetting: **Only Glyphs Used**

Options

Image Location: Embed Link

Preserve Illustrator Editing Capabilities

Advanced Options

CSS Properties: **Style Elements**

Include Unused Graphic Styles

Decimal Places: **1** Encoding: **Unicode (UTF-8)**

Optimize for Adobe SVG Viewer Output fewer <tspan> elements

Include Slicing Data Use <textPath> element for Text on Path

Include XMP Responsive

Description

ⓘ Hold the cursor over a setting for additional information.

Less Options SVG Code... Cancel OK

Unicode (UTF-8)

ISO 8859-1

Unicode (UTF-8)

Unicode (UTF-16)

Output fewer <tspan> elements

More Options

WAT

SVG Profiles:

- SVG 1.1
- SVG 1.0
- ✓ SVG 1.1
- SVG Tiny 1.1
- SVG Tiny 1.1 +
- SVG Basic 1.1
- SVG Tiny 1.2

SVG

- Adobe CEF
- ✓ SVG
- Convert to outline

Style Elements

- Presentation Attributes
- Style Attributes
- Style Attributes (Entity References)
- ✓ Style Elements

SVG Options

SVG Profiles: **SVG 1.1**

Fonts

Type: **SVG**

Subsetting: **Only Glyphs Used**



Description

ⓘ Hold the cursor over a setting for additional information.

Less Options SVG Code... Cancel OK

- Unicode (UTF-8)
- ISO 8859-1
- ✓ Unicode (UTF-8)
- Unicode (UTF-16)

Output fewer <tspan> elements

More Options

JUST DO THIS

PRE-OUTLINE

AVOID BITMAPS
ANYWAY

PRESENTATION ATTR

“1” IS ENOUGH

UNCHECK ALL
THIS GARBAGE

SVG Options

SVG Profiles: **SVG 1.1**

SVG 1.1

Fonts

Type: **Convert to outline**

Subsetting: **Only Glyphs Used**

Options

Image Location: Embed Link

Preserve Illustrator Editing Capabilities

UNCHECK

Advanced Options

CSS Properties: **Presentation Attributes**

Include Unused Graphic Styles

Decimal Places:

1

Encoding: **Unicode (UTF-8)**

UTF-8

Optimize for Adobe SVG Viewer

Output fewer <tspan> elements

Include Slicing Data

Use <textPath> element for Text on Path

Include XMP

Responsive

UNCHECK
OMITS HEIGHT + WIDTH

ALL DONE!

svg	--	Today 4:00 PM	Folder
icon_mountain.svg	1 KB	Today 3:58 PM	SVG Image
icon_flag.svg	823 bytes	Today 3:58 PM	SVG Image
icon_knife.svg	1 KB	Today 3:58 PM	SVG Image
icon_map.svg	1 KB	Today 3:58 PM	SVG Image

OPTIONAL: REMOVE PREFIXES

▼  svg	--	Today 4:31 PM	Folder
 mountain.svg	1 KB	Today 3:58 PM	SVG Image
 flag.svg	823 bytes	Today 3:58 PM	SVG Image
 knife.svg	1 KB	Today 3:58 PM	SVG Image
 map.svg	1 KB	Today 3:58 PM	SVG Image

READYMADE ICONS - ICOMOON.IO

icomoon.io/app/#/select

Import Icons

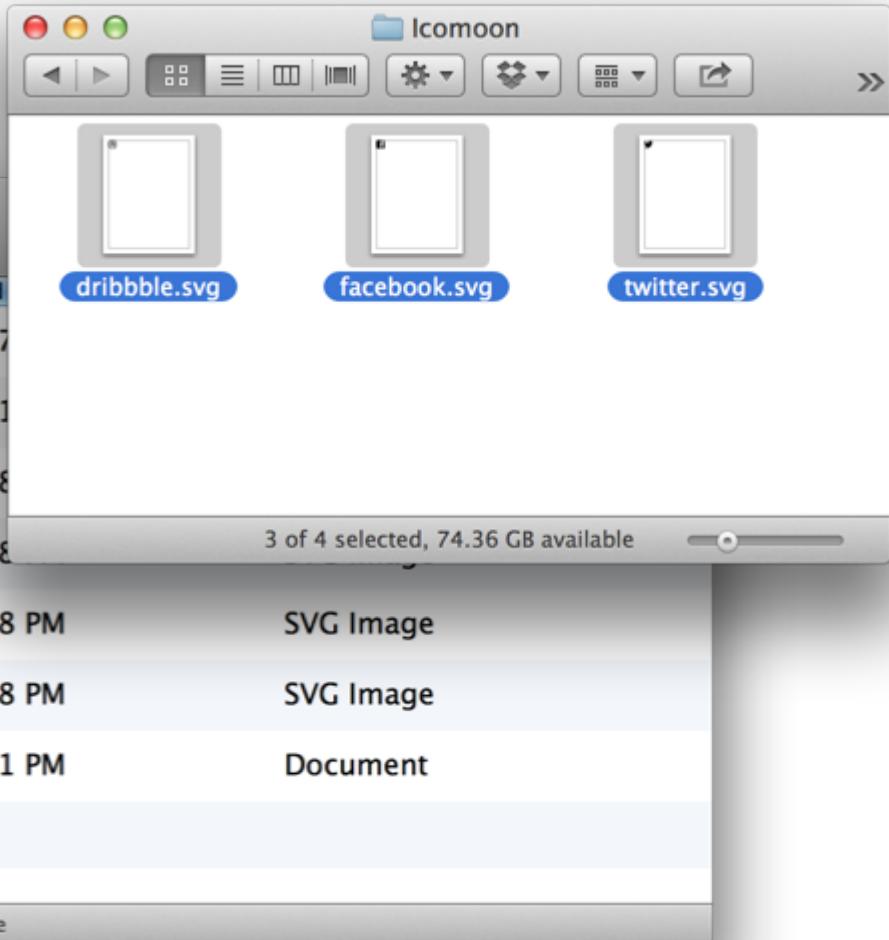
search... ↺ ↻ ☺

→	↗	↓	↖	←	↖	↑	↗	→	↘
↓	↖	←	↗	↑	↗	→	↘	↓	↖
↶	↑→	✓	□	■	○	○	☒	✂	🔍
🔍	Ƒ	T↑	↔	B	U	I	S	Ω	Σ

SVG Font ➔

EASY PEAS

my project			
Name	Size	Date Modified	
.DS_Store	6 KB	Today 4:17	
svg	--	Today 4:31	
mountain.svg	1 KB	Today 3:58	
flag.svg	823 bytes	Today 3:58	3 of 4 selected, 74.36 GB available
knife.svg	1 KB	Today 3:58 PM	SVG Image
map.svg	1 KB	Today 3:58 PM	SVG Image
.DS_Store	6 KB	Today 4:31 PM	Document



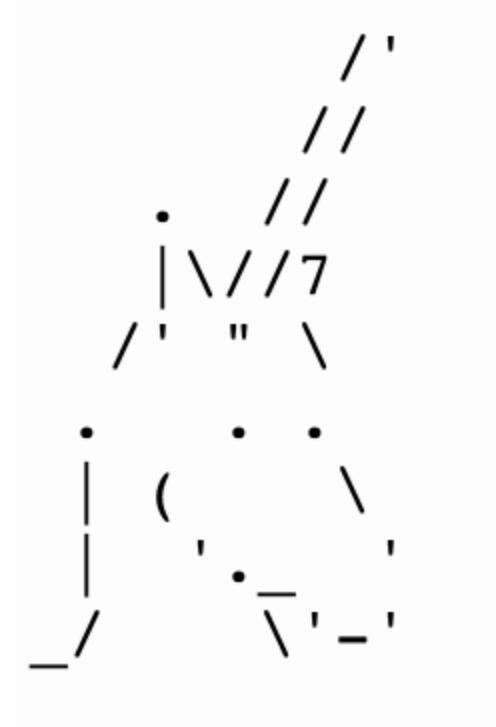
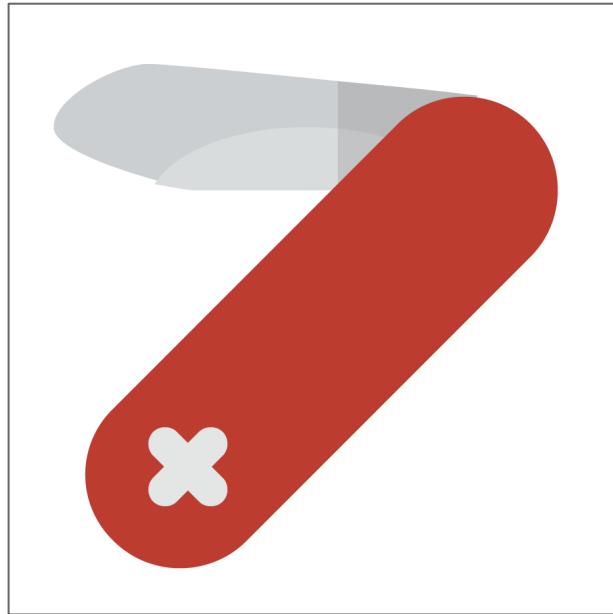
AUTOMATING

fallbacks

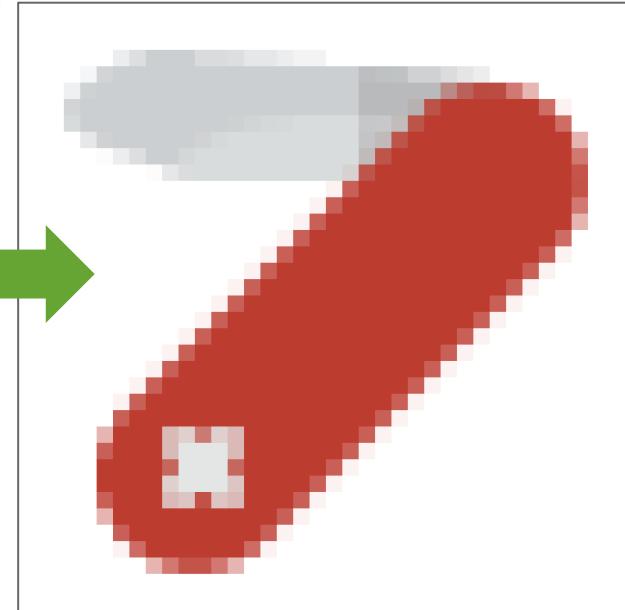
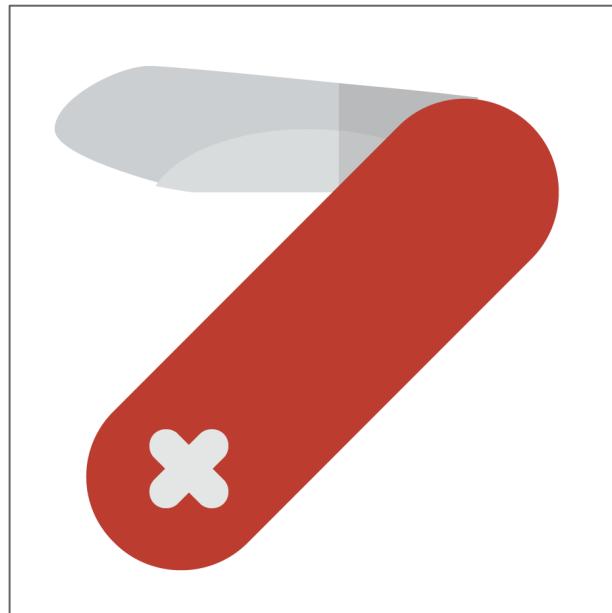
BEHOLD, THE GRUMPICON!



TAKER OF SVGS



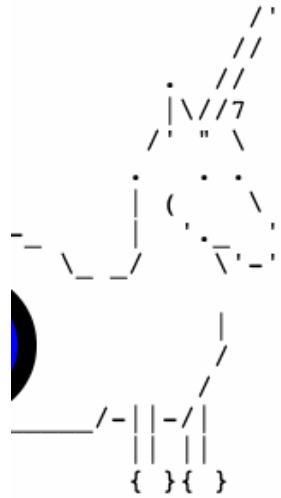
MAKER OF FALLBACKS



1x PNG BITMAPS BASED ON EACH SVG

GRUMPI

www.grumpicon.com

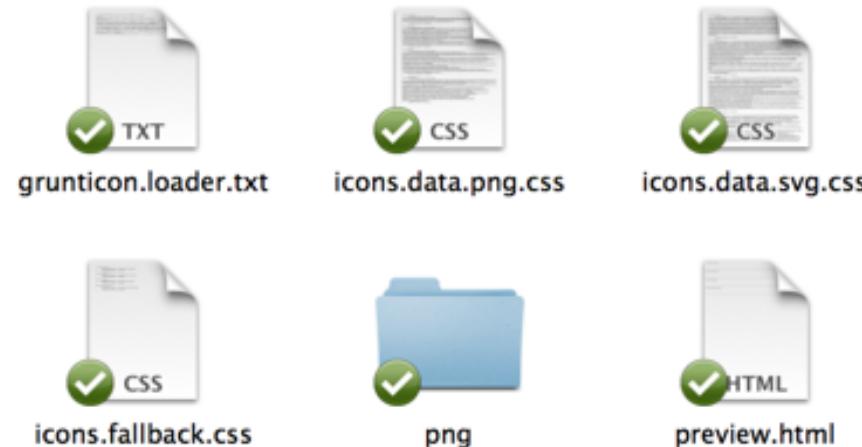


<http://grumpicon.com>

WHAT'S INSIDE?



grunticon.zip
19 KB



PREVIEW FILE



file:///Downloads/grunticon/preview.html

.icon-dribbble:



.icon-facebook:



.icon-flag:



.icon-knife:



3 SUPPORT TIERS

SVG SUPPORT,
INLINE SVG

IE9+, Chrome 14+, Safari 4+, Firefox 3.6+,
Opera 15+, iOS 3+, Android 4.0, BB Playbook

PNG Fallback,
DATA URI CSS

IE8, Android 1.x-2.x, Opera Mobile/Mini

PNG Fallback,
SEPARATE IMAGES

IE6-7, Non-JS environments

AUTO-GENERATED

SVG SUPPORT,
INLINE SVG



IE9+, Chrome 14+, Safari 4+, Firefox 3.6+,
Opera 15+, iOS 3+, Android 4.0, BB Playbook

PNG Fallback,
DATA URI CSS



IE8, Android 1.x-2.x, Opera Mobile/Mini

PNG Fallback,
SEPARATE IMAGES



IE6-7, Non-JS environments

ICON CSS

SVG SUPPORT, INLINE SVG



icons.data.svg.css

```
.icon-flag {  
    background-image: url('data:image/svg+xml; charset=US-ASCII, S  
    background-repeat: no-repeat;  
}
```

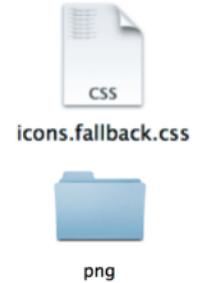
PNG Fallback, DATA URI CSS



icons.data.png.css

```
.icon-flag {  
    background-image: url('data:image/png; base64, iVBORw0KGgoAAA  
    background-repeat: no-repeat;  
}
```

PNG Fallback, SEPARATE IMAGES



icons.fallback.css

png

```
.icon-flag {  
    background-image: url('png/flag.png');  
    background-repeat: no-repeat;  
}
```



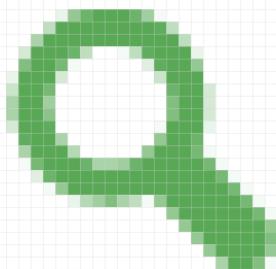
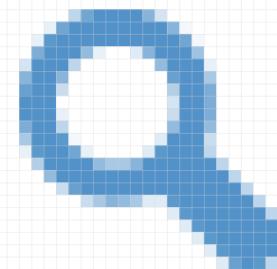
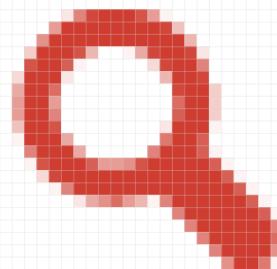
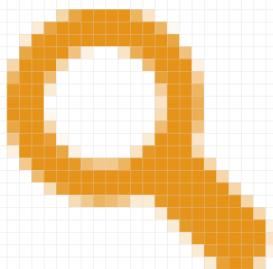
flag.png

YU NO SPRITE?

The screenshot shows the iconizr website. At the top left is a yellow circular badge with the text "Did you know that iconizr can help you with CSS icons? Just drag and drop them like shower and winter!". The main title "ICON1ZR" is in large blue capital letters. A blue ribbon banner at the top right says "BETA WEBSITE". Below the title is a text block: "takes your **SVG** drawings and processes them to a **CSS icon kit**, coming in several different flavors. It prefers **high-resolution (retina) SVG** over **PNG icons**, **data URLs** over **CSS sprites** and single images and provides fallbacks for even the least capable browsers. It outputs **Sass** along with (or instead of) **CSS code**". Below this is a large button with the text "drop your SVG icons here" and the sub-instruction "(or click to select them)". Underneath is a note: "With this free service, you may process **up to 50 icons** in a single pass, with each icon file being **300 kB** or less in size. Icons will be limited to a **maximum of 300 x 300 pixels** resolution. If you need more, please feel free to download and setup iconizr on your local machine (or drop me a line).^{*}" At the bottom left is a note: "* To learn more about iconizr's features and internal functioning or to grab the command line version, please visit the iconizr [GitHub repository](#). You may [report an issue](#) there as well." Below this are social sharing links for StumbleUpon, Twitter, LinkedIn, and Digg, followed by a note: "I'm jkphl, please follow me on Twitter to keep updated" with a link to his Twitter profile. At the bottom right is a note: "Kindly supported and hosted by [tildes.net](#), licensed under [MIT License](#)".



COLOR VARIATIONS



SVGs PER COLOR

Make multiple SVGs for each color to support fallback generation and **let GZIP do it's thing.**



search-orange.svg



search-red.svg



search-blue.svg

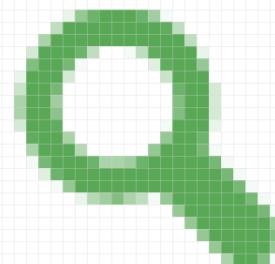
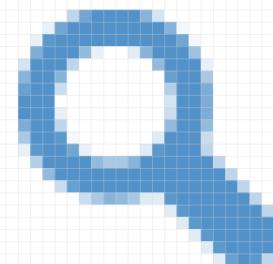
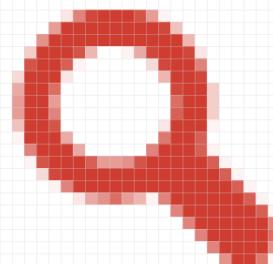
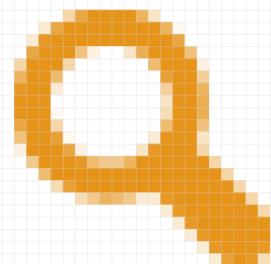
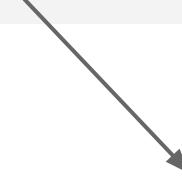


search-green.svg

```
.color-orange { fill: #F38316; }  
.color-red { fill: #DC0014; }  
.color-blue { fill: #0587C1; }  
.color-green { fill: #00A14B; }
```

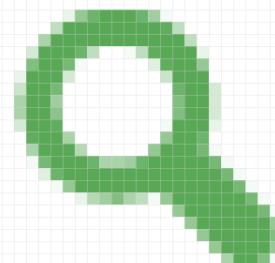
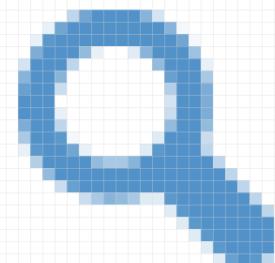
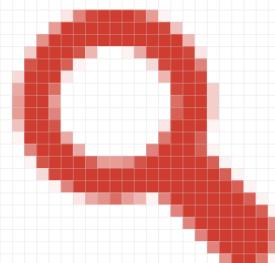
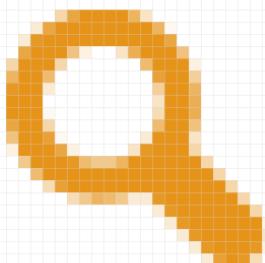
GRUNTICON COLOR OPTION

search.colors-DC0014-0587C1-00A14B.svg



GRUNTICON COLOR OPTION

search.colors-error-quiet-success.svg



CONTROL VIA ARTBOARD NAMING



Artboard Options

Name: `search.colors-DC0014-0587C1-00A14B`

Preset: Custom

Width: 21.04 px X: 7539.82 px

Height: 21 px Y: -7642.93 px

Orientation:

Constrain proportions (i) Current proportions: 1

Display

Show Center Mark
 Show Cross Hairs
 Show Video Safe Areas
Video Ruler Pixel Aspect Ratio:

Global

Fade region outside Artboard
 Update while dragging

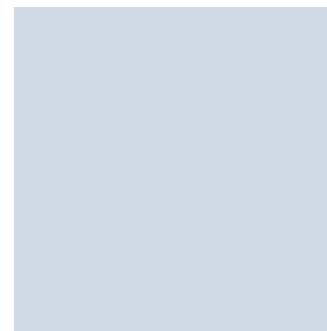
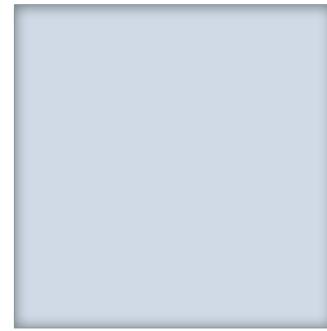
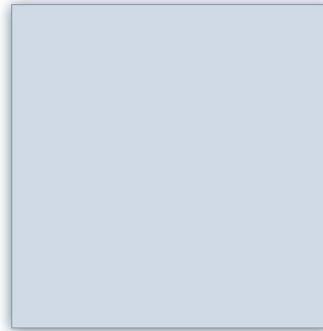
(i) Artboards: 9

(i) To create a new artboard within an artboard, press Shift

A screenshot of the Adobe Photoshop Artboard Options panel. The panel shows settings for the current artboard, including its name, dimensions (width 21.04 px, height 21 px), orientation (portrait), and various display and global options like fading and updating while dragging.

SVG FILTERS ARE TRICKY*

'
//
//
. // / 7
/ " \ \
. . .
| (. \ '
_ / \ - -'



* We're working on it.

FORGET GRUMPI

use grunt

COMMAND LINE FTW



This repository

Search or type a command



Explore Gist Blog Help



toddparker



PUBLIC

filamentgroup / **grunticon**

Unwatch



108



Star

2,046



Fork 108

A mystical CSS icon solution. — Edit

416 commits

3 branches

35 releases

22 contributors



branch: master

grunticon /

Rev version

jlembbeck authored 19 minutes ago

latest commit 4ad069d0f7

example	Update previewTemplate docs	17 days ago
lib	customizable previewTemplate in configuration	2 months ago
tasks	Fix #148	20 minutes ago
test	Remove integration tests until we can get the build fixed consistently	17 days ago
.gitignore	Add to the gitignore some folder that might pop up during testing	4 months ago

Code

Issues

17

Pull Requests

0

Wiki

Pulse

Graphs

Network

Settings

<https://github.com/filamentgroup/grunticon>



Grunt for People Who Think Things Like Grunt are Weird and Hard

Chris Coyier

11 December 2013

Published in [Code](#)

[73 comments](#)

Front-end developers are often told to do certain things:

- ◆ **Work in as small chunks of CSS and JavaScript** as makes sense to you, then concatenate them together for the production website.
- ◆ **Compress your CSS and minify your JavaScript** to make their file sizes as small as possible for your production website.
- ◆ **Optimize your images** to reduce their file size without affecting quality.

<http://24ways.org/2013/grunt-is-not-weird-and-hard/>

THEN THESE

Grunticon



in Development

Martin LeBlanc
*Founder and CEO of
Iconfinder*

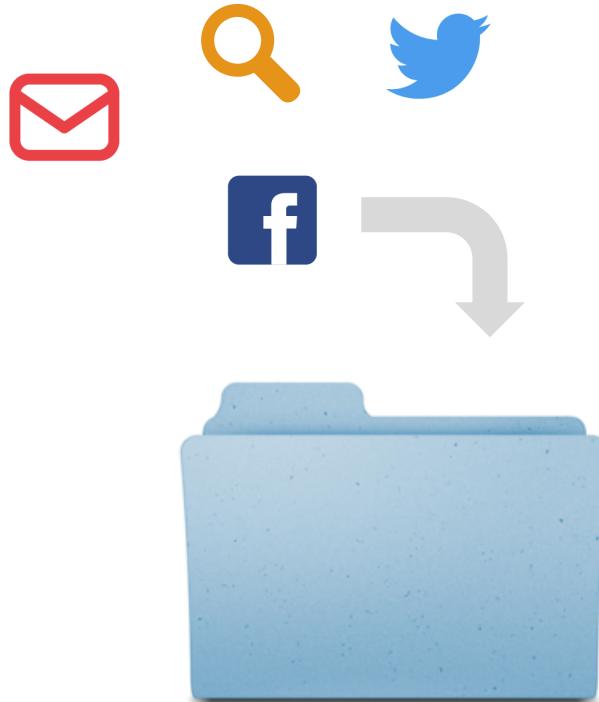
Getting started with Grunticon

<http://blog.iconfinder.com/get-started-with-grunticon/>
<http://mduncan.me/2014/02/06/grunticon-command-line-tool.html>

GRUNT TASK

```
grunt.registerTask('icons', [
  'chmod:writeable',
  'clean:grunticon',
  'copy:grunticon',
  'svgmin',
  'grunticon',
  'chmod:readonly'
]);
```

VECTOR WORKFLOW



svg

> **grunt icons**

WORKING IN

<code>

TWO EASY STEPS

using grunticons

1. ADD CSS LOADER TO <HEAD>

<head>

```
<!-- Unicode CSS Loader: place this in the head of your page -->
<script>
/* grunticon Stylesheet Loader | https://github.com/filamentgroup/grunticon | (c) 2012 Scott Jehl, Filament Group, Inc. | MIT license. */
window.grunticon=function(e){if(e&&3==e.length){var t=window,n=!!t.document.createElementNS&&!!t.documentElement.createElementNS("http://www.w3.org/2000/svg","svg").createSVGRect&&!!document.implementation.hasFeature("http://www.w3.org/TR/SVG11/feature#Image","1.1"),A=function(A){var o=t.documentElement.createElement("link"),r=t.documentElement.getElementsByTagName("script")[0];o.rel="stylesheet",o.href=e[A&&n?0:A?1:2],r.parentNode.insertBefore(o,r)},o=new Image;o.onerror=function(){A(!1)},o.onload=function(){A(1==o.width&&1==o.height)},o.src="data:image/gif;base64,R0lGODlhAQABAIAAAAAAAP///ywAAAAAQABAAACAUwAOw=="}};

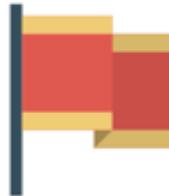
grunticon( [ "[YOUR PATH HERE]/icons.data.svg.css", "[YOUR PATH HERE]/icons.data.png.css", "[YOUR PATH HERE]/icons.fallback.css" ] );</script>

<noscript><link href="[YOUR PATH HERE]/icons.fallback.css" rel="stylesheet"></noscript>

</head>
```

2. USE LIKE A TYPICAL BG IMAGE

```
<button class="btn icon icon-flag">I Love  
Vectors</button>
```



I LOVE VECTORS

USING SVG

content

LOGO IS CONTENT, NOT DECORATION



MENU DRINKS LIVE MUSIC DIRECTIONS

EXPORT SVG + PNG VERSIONS



Save for Web

Original Optimized 2-Up

Preset
Name: [Unnamed]
PNG-8
Selective
No Dither
 Transparency
No Transp... | A We

Image Size
New Size:
Width: 272
Height: 272
Percent: 400
Art Optimized

Color Table

0% dither
Selective palette
33 colors

200% R: -- G: -- B: -- Alpha: -- Hex: -- Index: -- Browser Dither Export: All Slices Done

IMG + ONERROR

```

```

DOWNSIDE: The SVG will be requested in all browsers, regardless of support

PICTUREFILL ALTERNATIVE

```
<picture>
  <source type="image/svg+xml" srcset="logo.svg"
    <img srcset="logo.png" alt="...">
</picture>
```

SVG IS THE FUTURE.



ALL GOOD GIFS COURTESY OF @BEEP

DON'T FEAR THE

vector

THANKS.



toddmparker

filamentgroup.com