

tweet player

Audiovisual sequencer for tweet-sized JavaScript effects

Ates Goral / Toronto Hack && Tell / Oct. 17, 2017

@atesgoral

magnetiq.com | [link](#)

github.com/atesgoral | [link](#)



myplanet

Myplanet | [link](#)

Previously...



SCAN
QR CODE
TO RING
DOORBELL



Doorbell Ringer | [link](#)

“Code golf”

Code golf is a type of recreational computer programming ~~competition~~ in which participants strive to achieve the shortest possible source **code** that implements a certain algorithm. **Code golf** should not be confused with sizecoding, a contest to achieve the smallest binary executable **code**.

Code golf - Wikipedia

https://en.wikipedia.org/wiki/Code_golf

Golfing is a community effort

Some JavaScript golfing communities

CodeGolf: <https://codegolf.tk/> - friendlier for entry-level golfing

jS1k: <http://js1k.com/> - next round coming up!

- <https://atesgoral.github.io/bd1k/>
- <http://js1k.com/2017-magic/demo/2827>

Slack: <http://register.js golf.club> - come hang out with golfers!

reddit: <https://www.reddit.com/r/codegolf/>

StackExchange: <https://codegolf.stackexchange.com/>

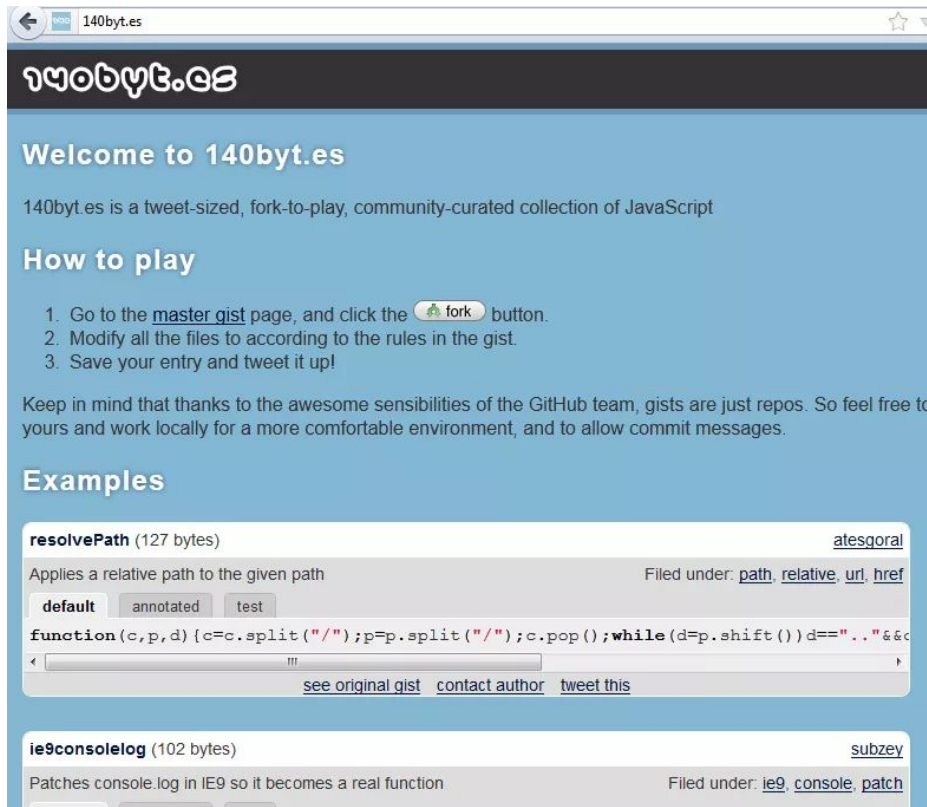
140

What can you do with 140 characters in JavaScript?

First(?) there was...

140byt.es (some company now)

Archive: <https://aishikaty.github.io/140bytes/>



140byt.es

Welcome to 140byt.es

140byt.es is a tweet-sized, fork-to-play, community-curated collection of JavaScript

How to play

1. Go to the [master gist](#) page, and click the [fork](#) button.
2. Modify all the files to according to the rules in the gist.
3. Save your entry and tweet it up!

Keep in mind that thanks to the awesome sensibilities of the GitHub team, gists are just repos. So feel free to fork yours and work locally for a more comfortable environment, and to allow commit messages.

Examples

resolvePath (127 bytes) [atesqoral](#)

Applies a relative path to the given path Filed under: [path](#), [relative](#), [url](#), [href](#)

[default](#) [annotated](#) [test](#)

```
function(c,p,d){c=c.split("/");p=p.split("/");c.pop();while(d=p.shift())d==".."&&c
```

[see original gist](#) [contact author](#) [tweet this](#)

ie9consolelog (102 bytes) [subzey](#)

Patches console.log in IE9 so it becomes a real function Filed under: [ie9](#), [console](#), [patch](#)

Byte saving techniques

<https://github.com/jed/140bytes/wiki/Byte-saving-techniques>

```
Math.floor(a/2) // before
```

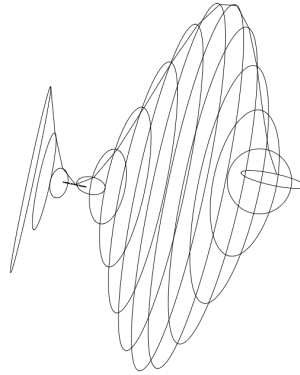
```
a>>1           // after
```

```
i=i||0;i++ // before
```

```
i=-~i        // after
```

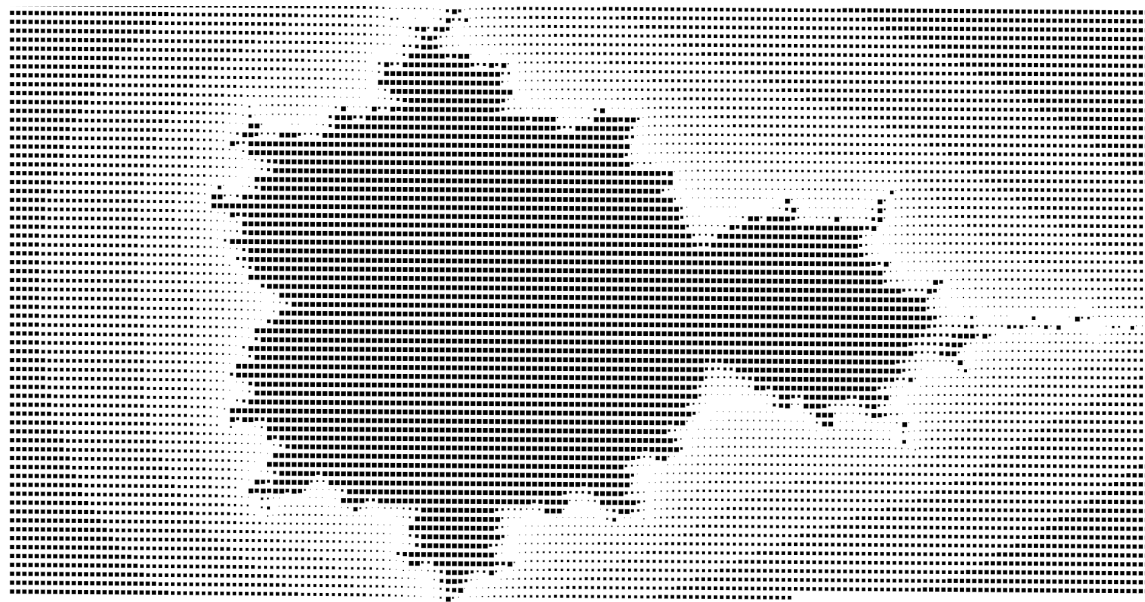
Then there was...

dwitter.net | [link](#)



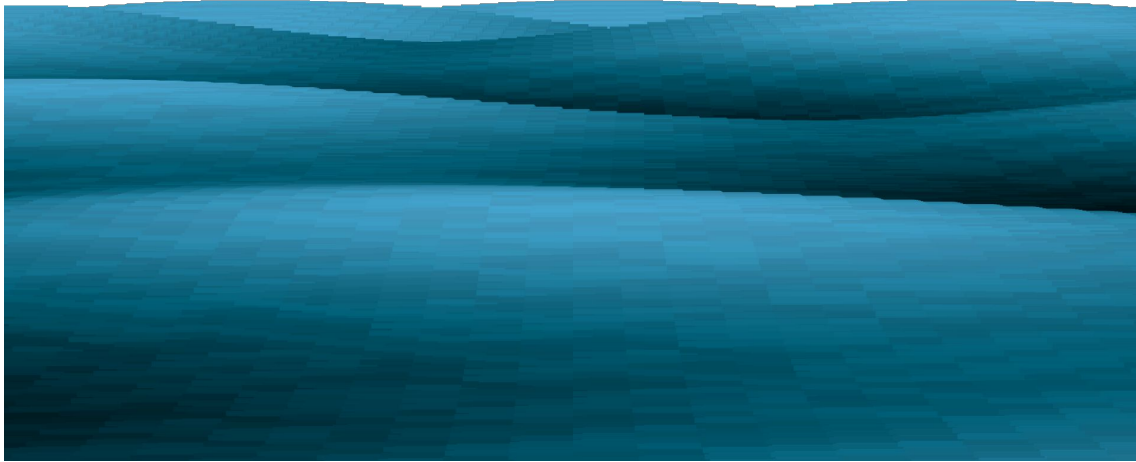
```
c.width=1920;for(i=16;i--;)x.ellipse(1e3+300*S(t+i*.1),500+50  
*C(t+i*.1),160*S(-i*.5)+160,50*S(i*.1)+5,1.6+.5*S(t*.5),9.5,0  
,6.3);x.stroke();
```

128/140 by p01 | [link](#)



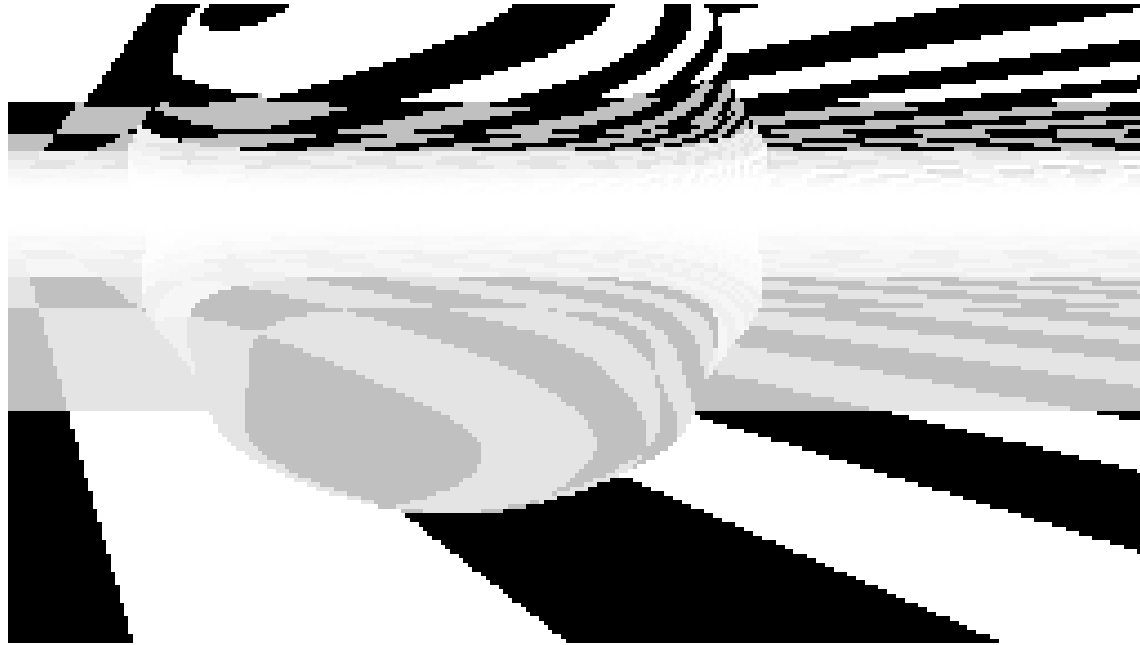
```
c.width|=0;for(n=200;n-=1/64;x.fillRect(n%3*666,n*5,h=8-k,h))
for(r=C(t*3),i=S(t*4),k=28;--k/r;i=j)j=2*r*i+1-n/99,r=r*r-i*i
+1-n%3
```

140/140 by recursive | [link](#)



```
for(d=256;--d;)for(X=-32;++X<32;x.fillRect(960+X*8e3/d,100+7e4/d-h,120,9))x.fillStyle=R(h=(C(a=d/9+t*6)+C(X/9+a/3))*35,g=h+C(X^d)*6+90,g/.8)
```

140/140 by sigveseb | [link](#)



```
W=c.width=255;for(i=9<<12;a=i&W,b=i>>8,n=b-45,m=a-99,i--;x.fi  
llRect(a,b,A=1/(((t+a/n)%2)^b/n),A))n*=(B=(W*S(t*29+n/5)+m*m+  
n*n)/5e3)<1?C(B):1
```

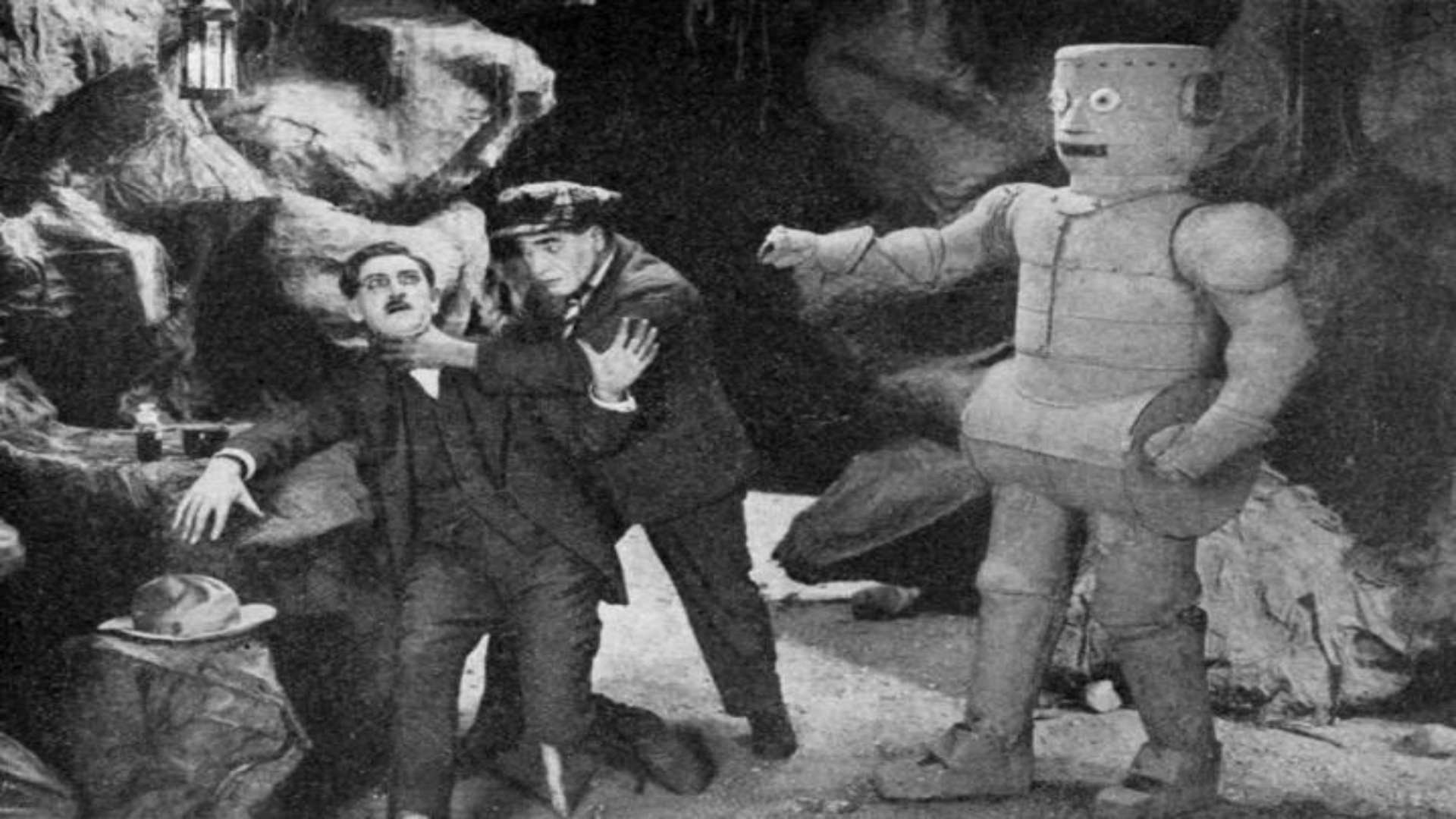
dweet runtime

- c - canvas
- x - 2D context
- t - time
- S - Math.sin
- C - Math.cos
- R - RGB colour utility

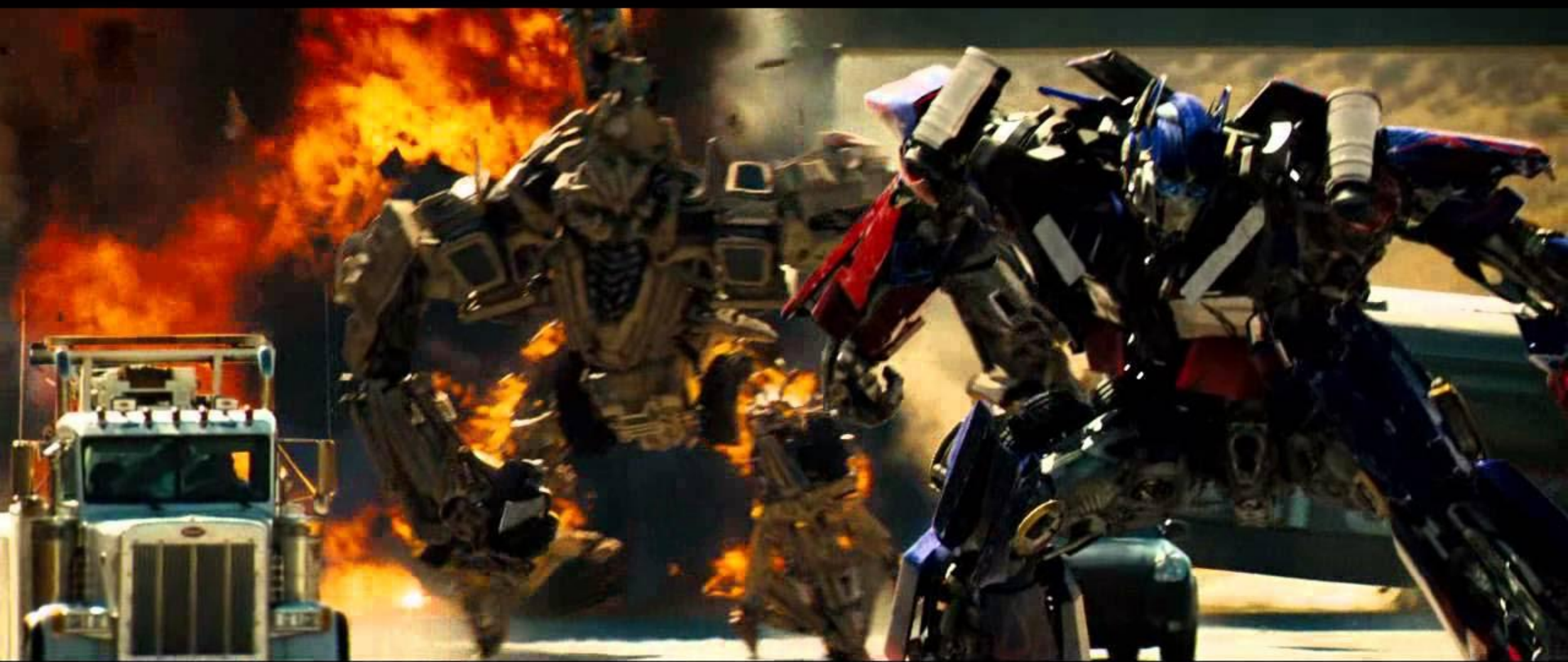
It involves:

- Golfing know-how
- Math
- Algorithms
- Creativity
- Perseverance

Visuals without audio



Audio adds so much!



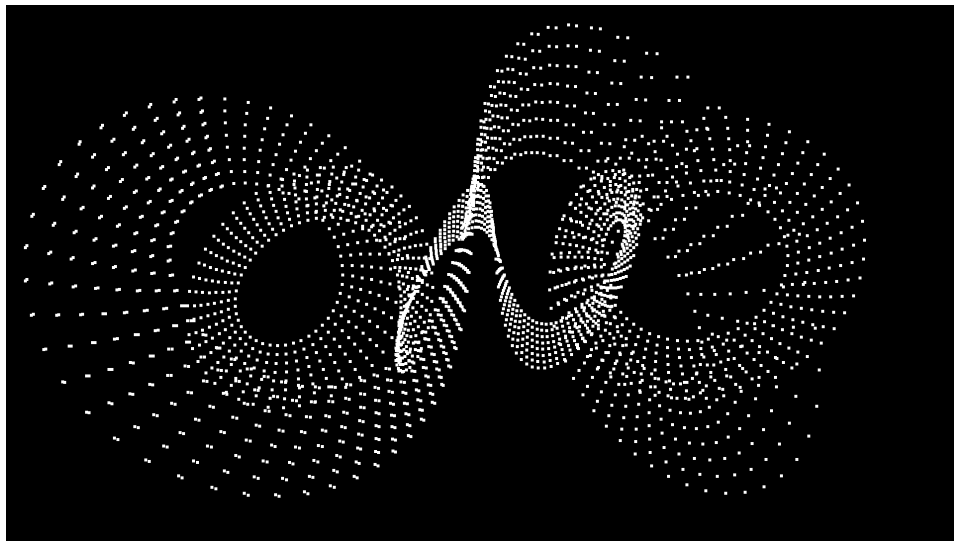
So I made...

tweetplayer.net

First pick a nice dweet

<https://www.dwitter.net/d/3252>

137/140 by cantelope



Then find some cool music

Free Music Archive: <http://freemusicarchive.org/>

- Electronic: IDM
- Electronic: Dubstep
- Electronic: Chiptune
- etc.

Copy the track detail page URL.

http://freemusicarchive.org/music/Pierlo/Olivetti_Prodest/05_San_Diego_Cruisin

Or just a URL to any MP3 file (but beware of licensing issues!)

Then go to dweet player

The URL format is:

/demo/v1/.../.../...

Where:

- the first ... is for the loader dweet ID - using * picks a random one
- the second ... is for a comma-separated list of dweet IDs
- and the third ... is for the audio track URL

https://dweetplayer.net/demo/v1/*/3252/http://freemusicarchive.org/music/Pierlo/Olivietti_Prodest/05_San_Diego_Cruisin

Beat detection

source → analyzer → script processor → destination

source → delay → gain → destination

beat = root mean square (RMS) of FFT bins / running average of RMS > threshold

But it's just some audio + some visuals

Need to make visuals dance to audio!

Time warping

- Suffix the dweet id with t to “rush” time to the beat
- Suffix the dweet id with T to “bounce” time to the beat

https://dweetplayer.net/demo/v1/*/3307~20t10,3307~8T80/http://www.metronomebot.com/iPhoneClickTracks/MetronomeBotBasicClickTrack120.mp3

Scene transitions

- @ - exact seconds
- ~ - approximate seconds (align to next beat)
- ! - exact frames

Flash to beat

- b - flash to black
- w - flash to white

Mirror image

- h - horizontal mirror (at given location)
- v - vertical mirror (at given location)

Zoom

- z - zoom (at given amount)

Continuity

- = - continue from last frame

Planned

- S - distort sine function with FFT bins
- C - distort cosine function with FFT bins

Tweet ideas to @atesgoral

Work-in-progress demo

Scene transitions are not timed well yet :(

https://dweetplayer.net/demo/v1/3097/261~7,637~3,637!1h6,637!1h7,637!1h8,637!1h9,637!1h10,93!5,1357b,838~10t3,2030~10T,2873~15t,2220~8b,1025~10z,977,977h=,977v=,309~8w,1944t2h,1944t2v/http://freemusicarchive.org/music/Boss_Bass/Love_For_Everyone_Everywhere/08_-_Boss_Bass_-_Extreme_Bass_Terror

Default demo

Again, scene transitions are not timed well yet :(

<https://dweetplayer.net/>

Your demo here

Please tweet me your finished products: @atesgoral

Info and source code

<https://github.com/atesgoral/dweet-player>

Behind the scenes:

- Scrapes dwitter.net pages for dweet meta + source
- Reads meta from FMA (via API) and MP3 ID3
- Aggressive caching of meta + audio
- Per-dweet runtime (sandboxing)
- Pure-CSS icons! Wow!
- Plain old jQuery + Handlebars! Yay!
- Node.js on Heroku, fronted by Cloudflare

Thanks!
