Investigative Research into impriving image text generation

1. Pre-cache technique that sends a http head request while user is typing to server and a get request when the user submits the modified text.
   1. Problems with this technique:
      1. How do we decide when to send the http head request? It’s not good to send a request after every key press since it will make the browser send too many http requests to the server.
         1. Is it possible to have the latest head request cancel the previous ones?
      2. What if the user presses enter right when he finishes typing? Then the issue with the slow generation will still be there.
2. Measure user experience
   1. What is the requirement for a good user experience?
   2. Methods
      1. Using log file
      2. Measure speeds of:
         1. Image delivery time
         2. imagemagick
            1. Measure sentiment speeds for imagemagic/rmagick

Usually around .3-1 second depending on how long the sentiment is. The longer the sentiment, the longer it takes to generate the image because of the way it tests to see if the sentiment fits in the text box.

* + - 1. Pango/cairo
         1. Measure content delivery speeds for pango/cairo
      2. How can we get the most accurate measurements?

1. Server-Side latency improvement.
   1. Can we improve the speed of imagemagick by compiling it with different options?
   2. Can we implement a kind of pre-fork mechanism?

Curl generateTextLayer to twosmiles.com

real 10m16.489s

user 0m5.536s

sys 0m3.167s

Pango cairo (Image/Text libraries)

1. Run as an executable on OSX using node.js
   1. “time for x in {1..1000}; do curl -s "http://localhost:1337/" > /dev/null;done”
      1. real 0m11.181s
      2. user 0m4.030s
      3. sys 0m2.355s

Installing pango/cairo on Ubuntu

1. Install the required packages using apt-get
2. Link the packages in the bash profile
3. Put fonts in /usr/share/fonts
4. Executing binary file using node.js
   1. Local server curl
      1. real 0m54.306s
      2. user 0m2.220s
      3. sys 0m7.172s
   2. Remote server curl over hp network
      1. real 3m34.851s
      2. user 0m4.093s
      3. sys 0m2.098s
5. Node.js addon
   1. Local server curl
      1. real 0m36.944s
      2. user 0m2.252s
      3. sys 0m7.008s
   2. Remote server curl over hp network
      1. real 2m43.128s
      2. user 0m4.111s
      3. sys 0m2.120s

Test image

Alignment Font Size X Offset Y Offset Height Width

message Center 16 182 577 346 1137

Sentiment 1 :

Here’s a little gift to let you know that you’ve been on my mind and in my heart. I hope everything is going well with you.

Sentiment 2 :

You're in my thoughts and prayers during this tough time. Here's a little gift to lift your spirits.

Sentiment 3 :

I'm so appreciative of everything you do. Here's a little token of thanks.