











## OLD MAN YELLS AT CLOUD



Cidence Abraham Einen Ch

neight of the series of a seri

1.2

Indiana (Zithill)



**Nate Koechley: Professional Frontend Engineering** 



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From YUI Library

Computers

And then finally, and I think most importantly, is that for me, front-end engineering comes down to supporting users.

It's our job to make sure that they have a great user experience....

...We want to have stubborn empathy for what they need, and what they want, and what they're going through — what can we do to make all that better?

## stubborn empathy

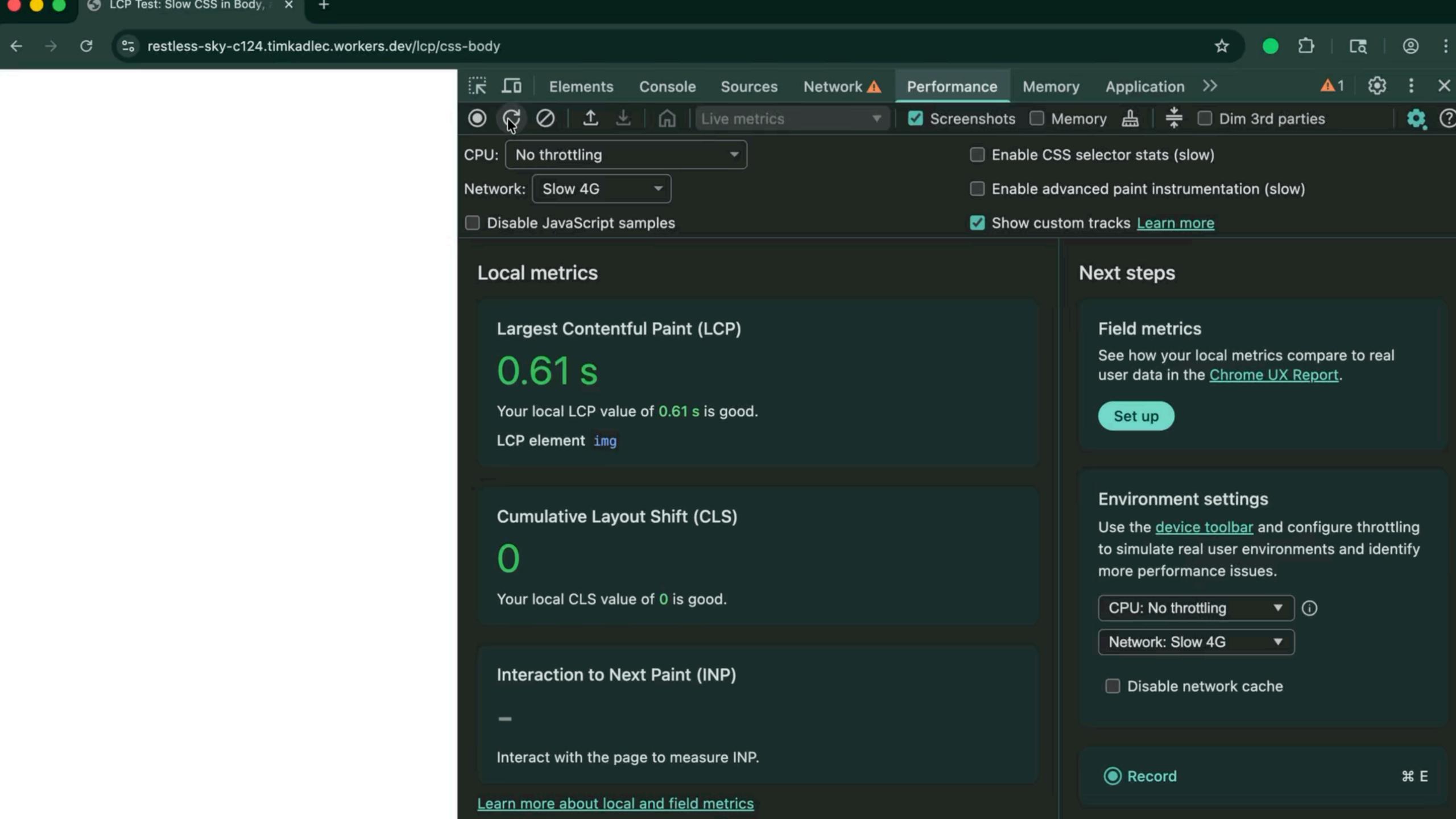
# Ine monoculture & the machine.

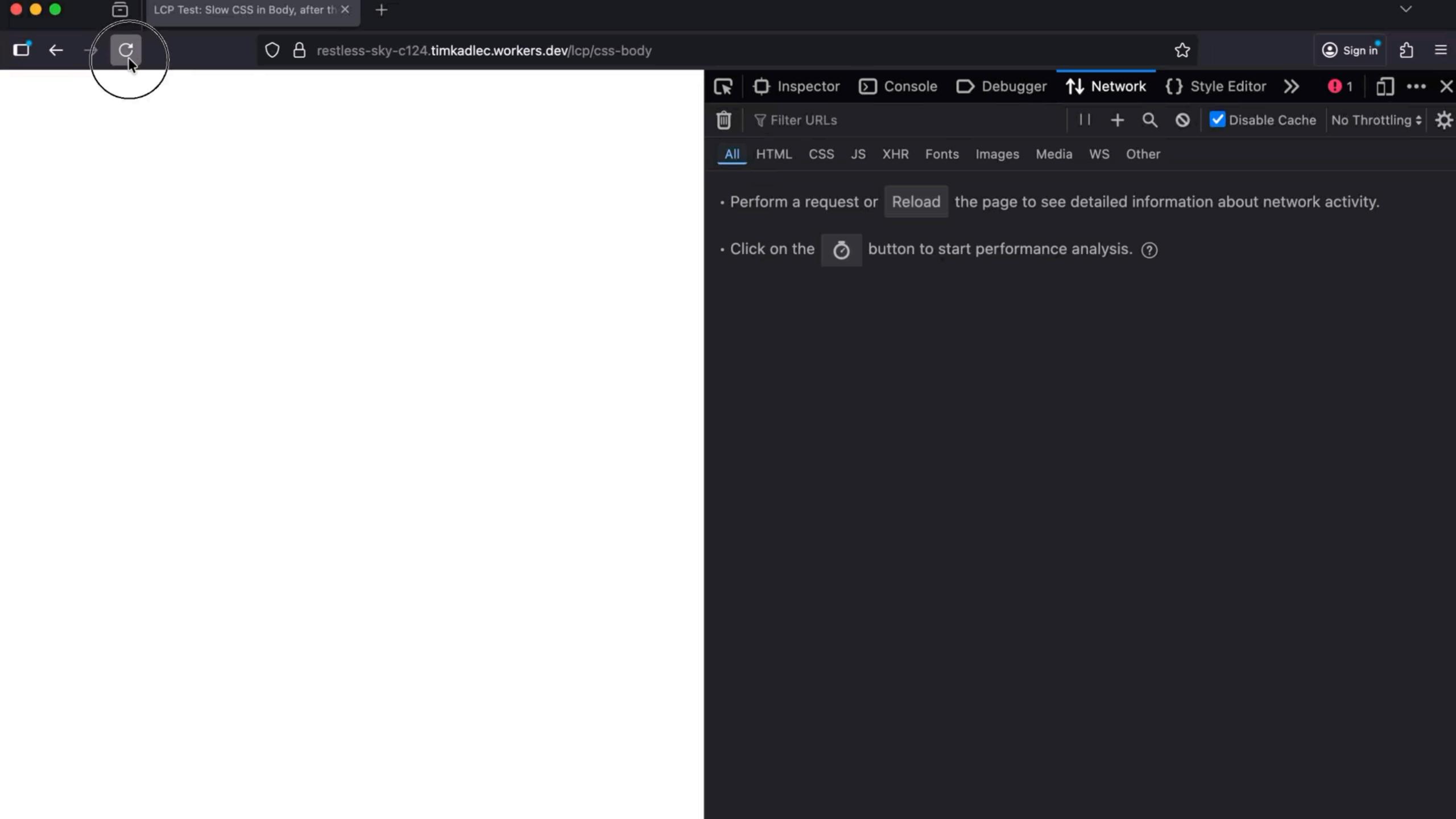
## ne monoculture

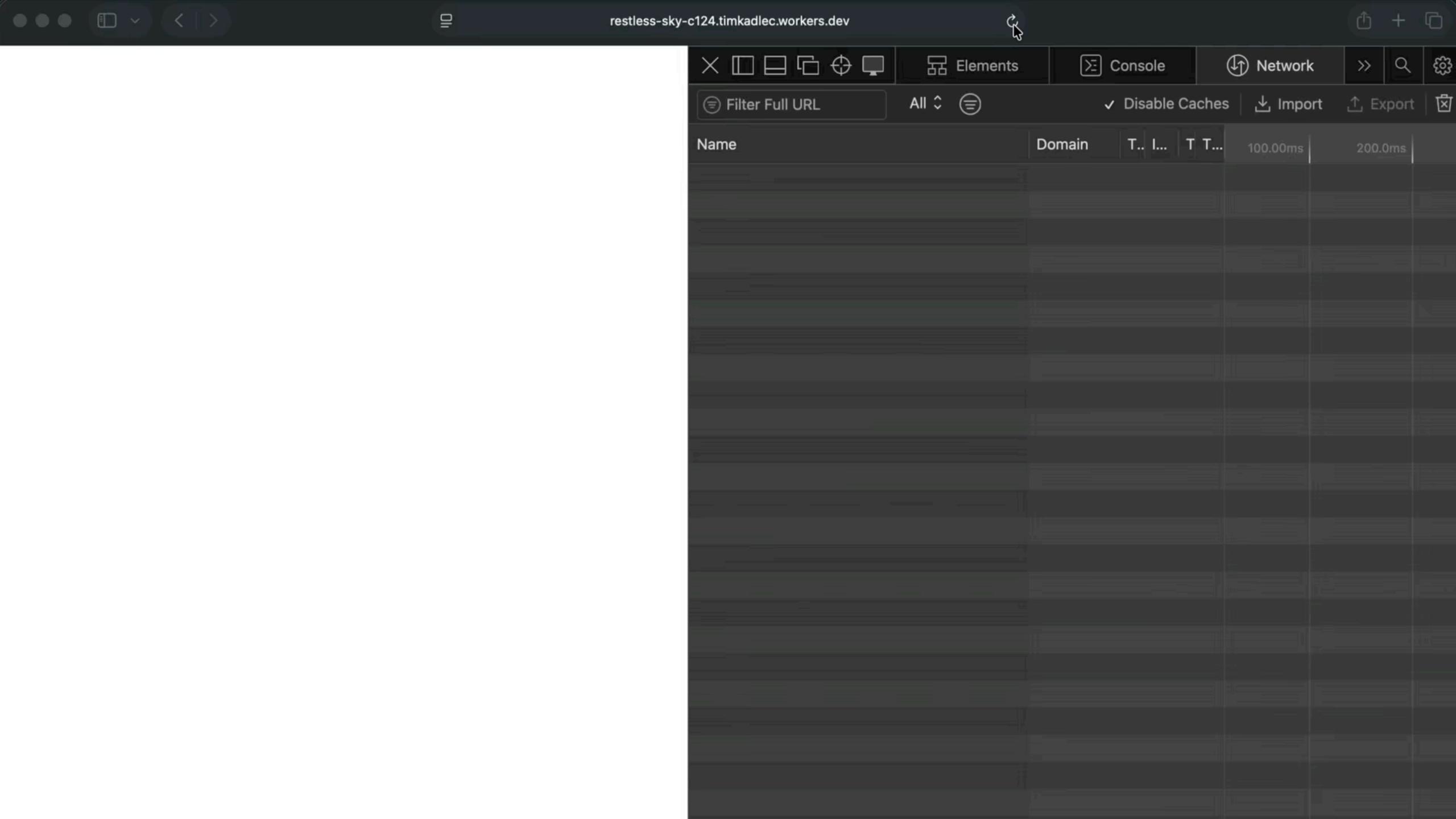


# The localhost delusion.

```
<body>
   <h1>LCP Test: Slow CSS in Body, after the image</h1>
   <img
      src="https://www.placecats.com/1000/700"
      alt="A large cat image."
      width="500"
      height="350"
   rel="stylesheet"
      href="https://slowfil.es/file?type=css&delay=3000">
   The LCP is the image, with a slow CSS link in the
body.
</body>
```







# Cross-browser testing is an act of user advocacy.











#### Interaction to Next Paint (INP) / Live Demo

To help you get a "feel" for the INP metric <u>(Learn more)</u>

#### Instructions

- 1. Use the controls below to add interaction latency.
- 2. Start interacting with the page (type, click, etc.)
- 3. Notice how the experience affects the INP value.
- 4. Refresh the page to start over.

#### Introduce periodic main thread blocking

#### Frequency

Never Often

#### **Customize event processing times**

keydown blocking time (0ms)



Jocking time (Oms)

#### INP value

(since page load)

40

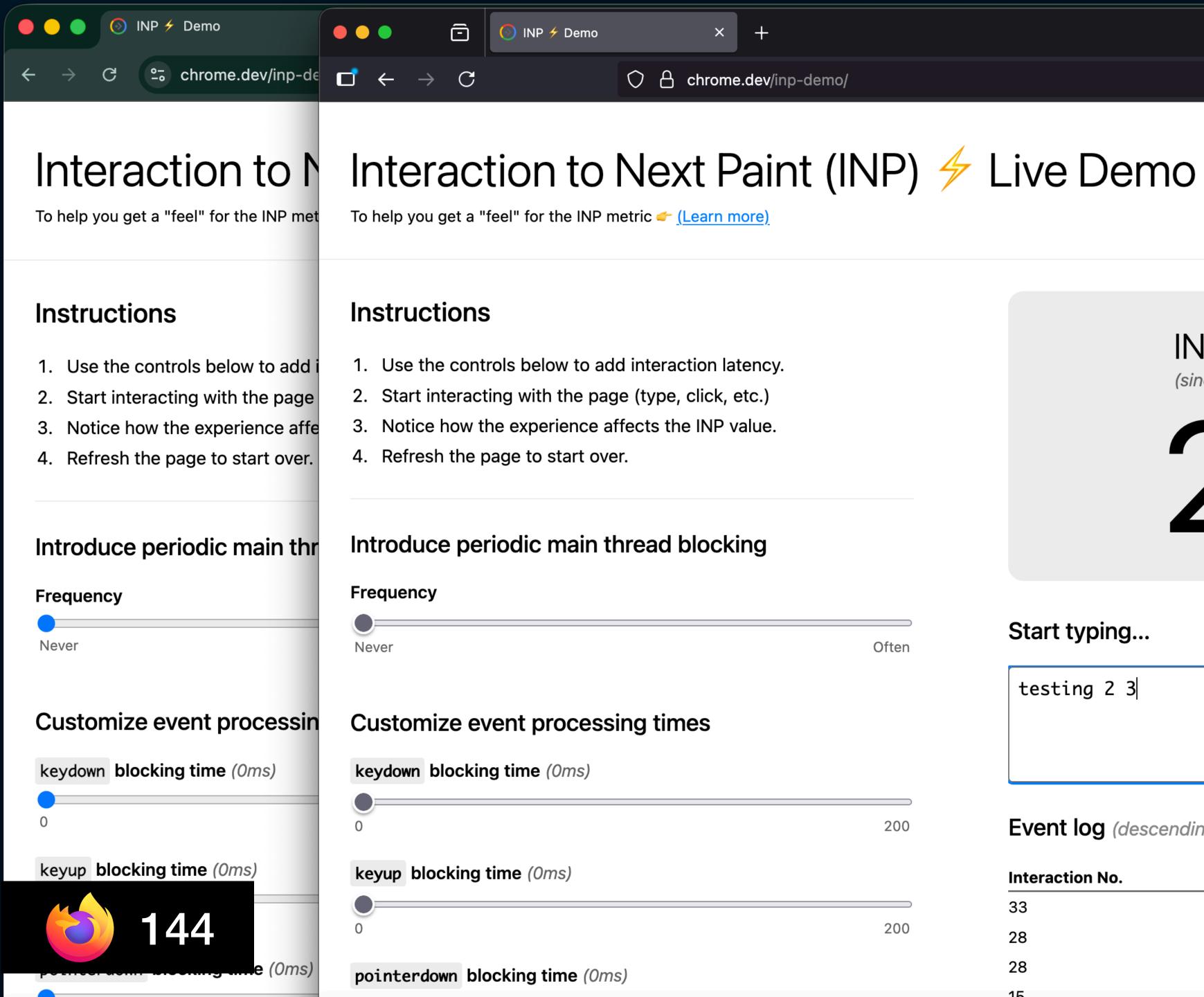


#### Start typing...

testing 2 3

#### Event log (descending order)

Interaction No.	<b>Event Type</b>	Duration	Timestamp
20	keyup	40	11:16:36.191Z
21	keydown	40	11:16:35.715Z
20	keydown	24	11:16:35.674Z
19	keyup	32	11:16:34.506Z



#### **INP** value

(since page load)



\$

#### Start typing...

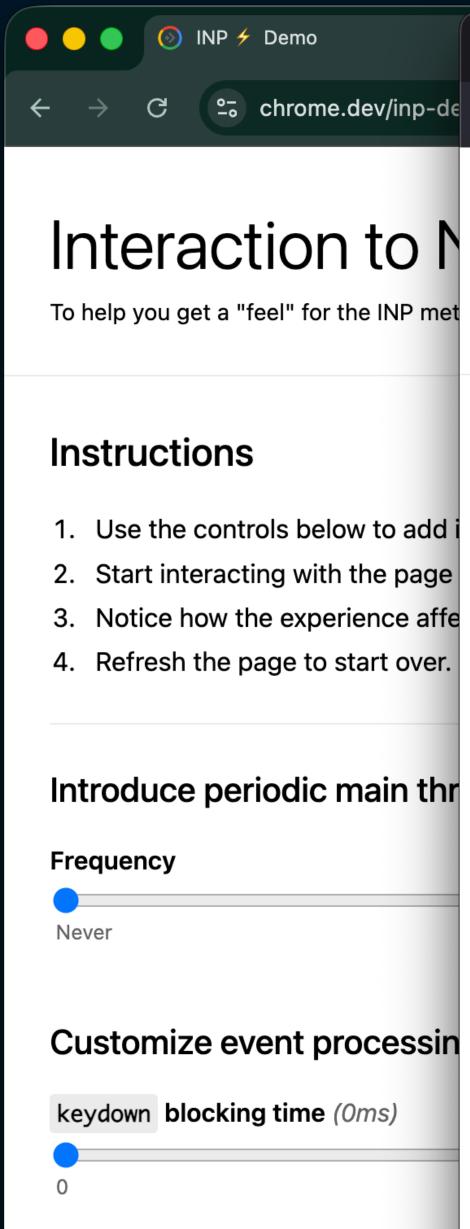
Often

200

testing 2 3

#### Event log (descending order)

Interaction No.	Event Type	Duration
33	keypress	16
28	keypress	16
28	keydown	16
15	kovproce	24



#### Interaction to Ne

0

To help you get a "feel" for the INP metric

#### Instructions

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#### Introduce periodic main thread

#### Frequency

Never

#### Customize event processing ti

keyup blocking time (0ms)



**e** (0ms)

keyup blocking time (0ms) pointerdown blocking time (Oms)

keydown blocking time (0ms)

#### Interaction to Next Paint (INP) / Live Demo

To help you get a "feel" for the INP metric <u>(Learn more)</u>

#### Instructions

- Use the controls below to add interaction latency.
- Start interacting with the page (type, click, etc.)
- Notice how the experience affects the INP value.
- Refresh the page to start over.

#### Introduce periodic main thread blocking

#### Frequency

Never Often

#### Customize event processing times

keydown blocking time (0ms)

200

keyup blocking time (0ms)

200

pointerdown blocking time (Oms)

(since page load)

**INP** value

#### Start typing...

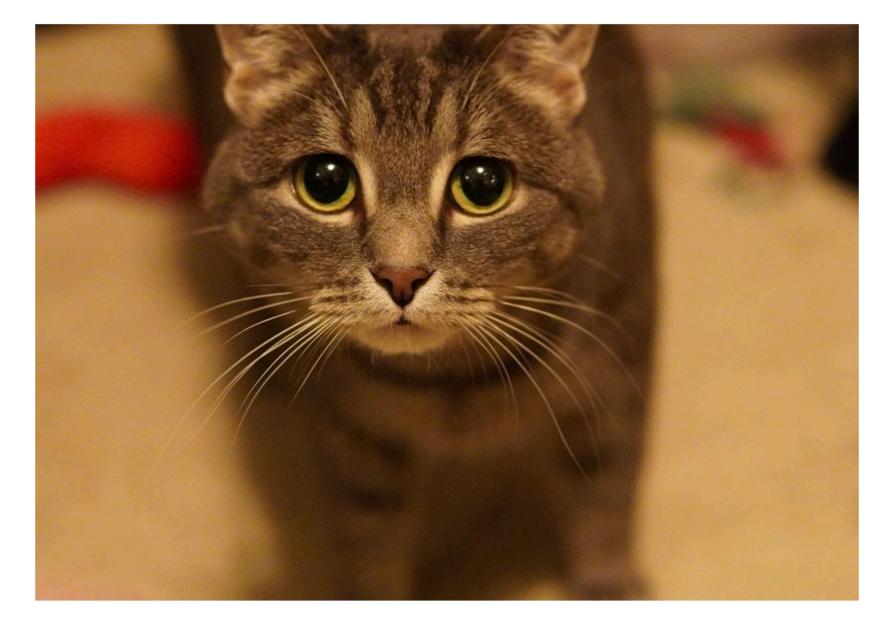
testing 2 3

200

#### **Event log** (descending order)

nteraction No.	<b>Event Type</b>	
7	keydown	
6	keypress	
6	keydown	
5	keyup	
5	keypress	
5	keydown	

#### LCP Test: Normal Image Load



This is a small paragraph to ensure the large image remains the LCP element.

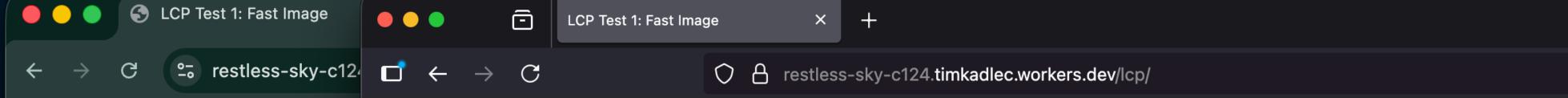
**✓ LCP Measurement Complete** 

LCP Time: 72ms

**Element Tag: IMG** 

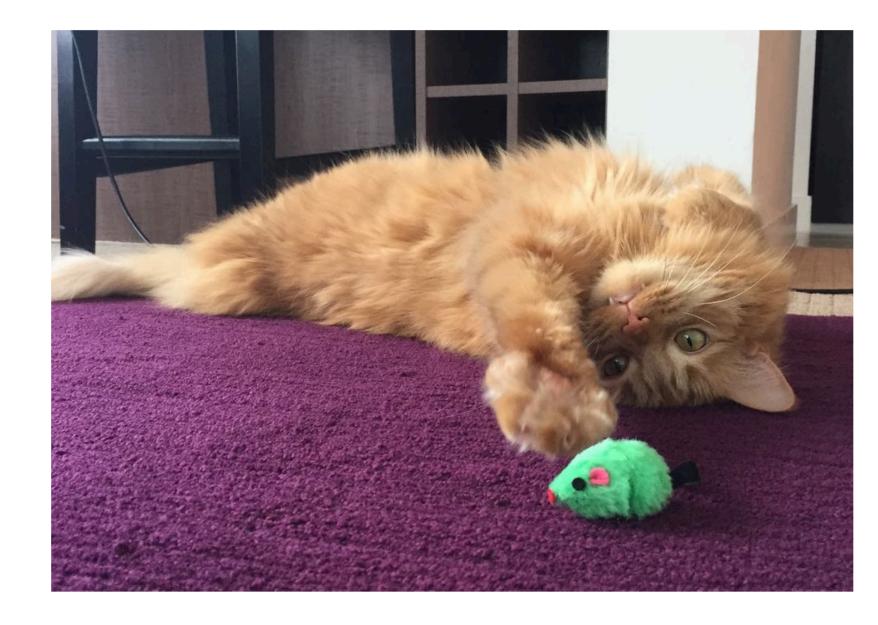
Element Selector: img







#### LCP Test: No LCP Test: Normal Image Load



\$

This is a small paragraph to ensu



LCP Time: 72ms

**Element Tag: IMG** 

Element Selector: img

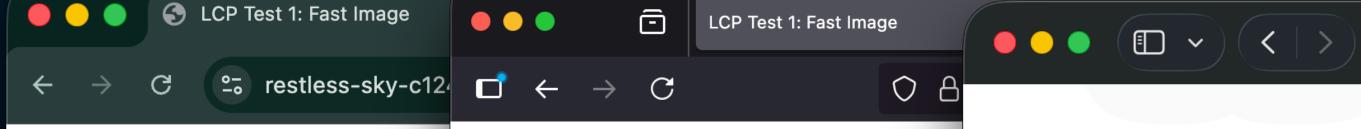
This is a small paragraph to ensure the large image remains the LCP element.

#### **▼ LCP Measurement Complete**

LCP Time: 145ms

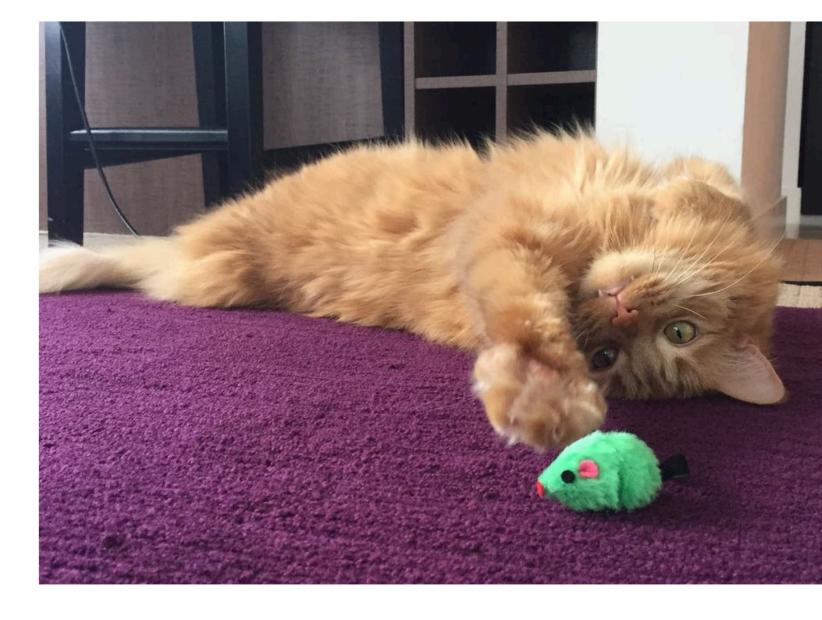
**Element Tag: IMG** 

Element Selector: img



#### LCP Test: No LCP Test: Norm

#### LCP Test: Normal Image Load



This is a small paragraph to ensu

**▼ LCP Measurement Com** 

LCP Time: 72ms

**Element Tag: IMG** 

Element Selector: ima



This is a small paragraph to ensure the la

**✓ LCP Measurement Complete** 

LCP Time: 145ms

**Element Tag: IMG** 

Element Selector: img

This is a small paragraph to ensure the large image remains the LCP element.

**V** LCP Measurement Complete

LCP Time: 94ms

**Element Tag: IMG** 

Element Selector: img



#### P75 INP (desktop only)

## 

## 120ms





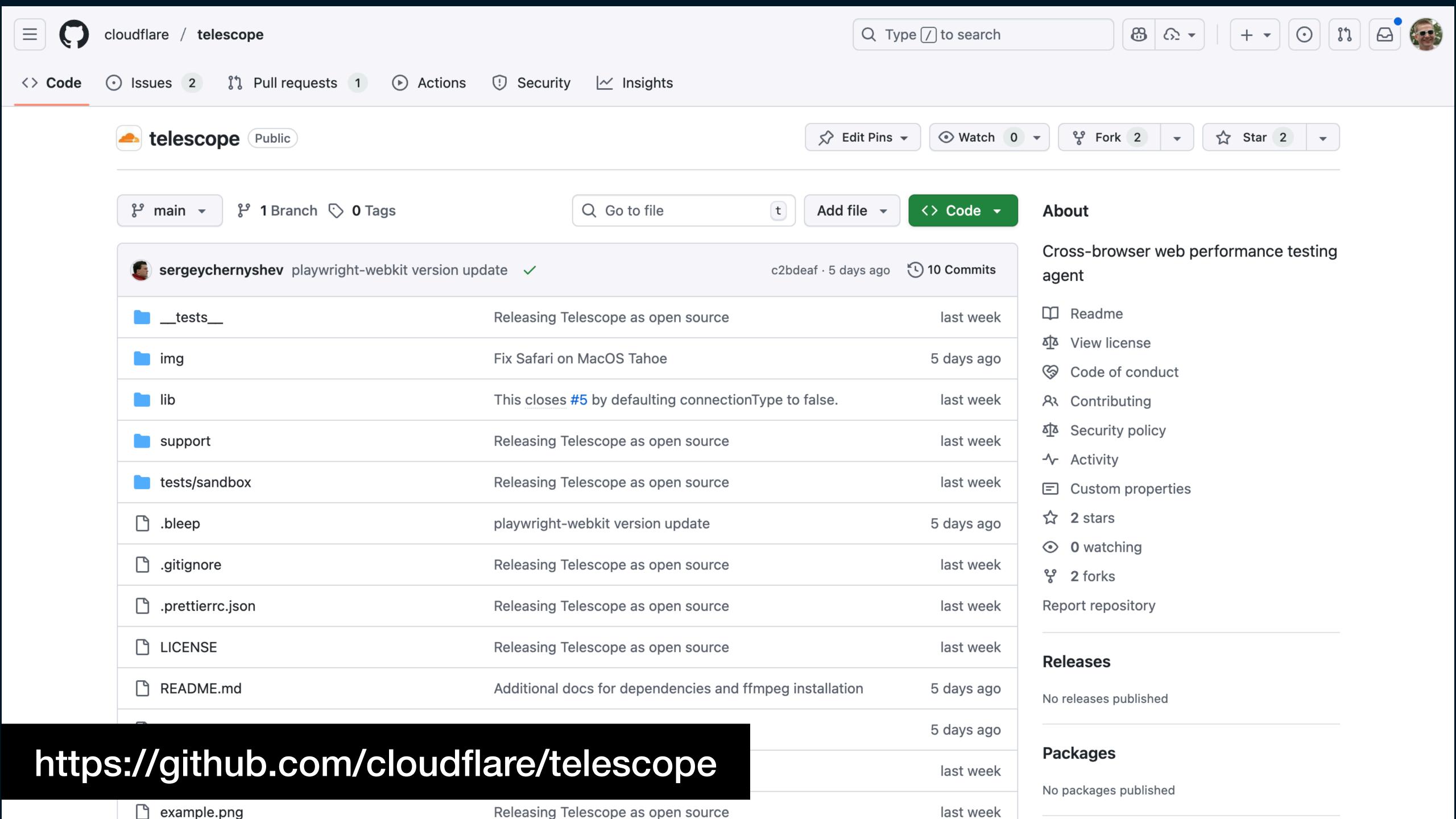
#### P75 LCP (desktop only)





### Measurement difference?

## Opportunity?



#### **Cross-browser support**









Filmstrip images

Video recording

Har generation

**Paint Timing** 

**User Timing** 

**Resource Timing** 

**Navigation Timing** 

Packet level network throttling

**Custom cookies** 

**Custom headers** 

**HTTP Auth** 

**CPU Throttling** 

**Block requests** 

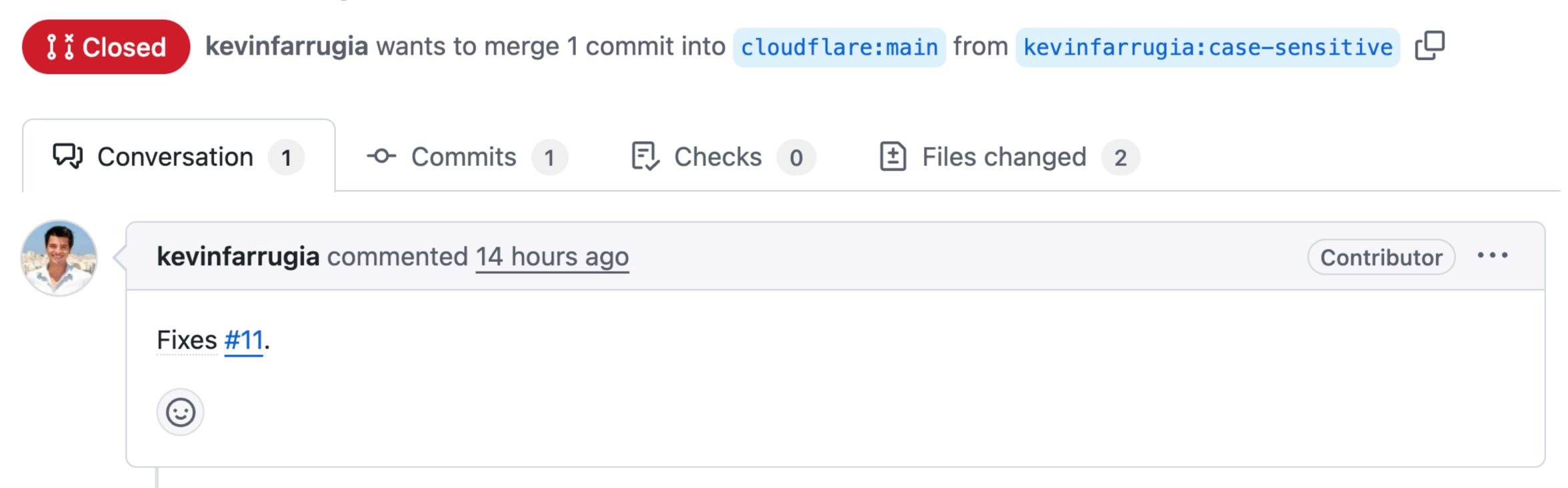
**Block domains** 

Firefox preferences

**Chromium flags** 



#### Renamed imports to camelcase #12



## ne machine

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### Favors generation time over lifetime quality.

#### 

increase in average PR size

#### 

increase in PR review time

#### 

increase in bugs per developer

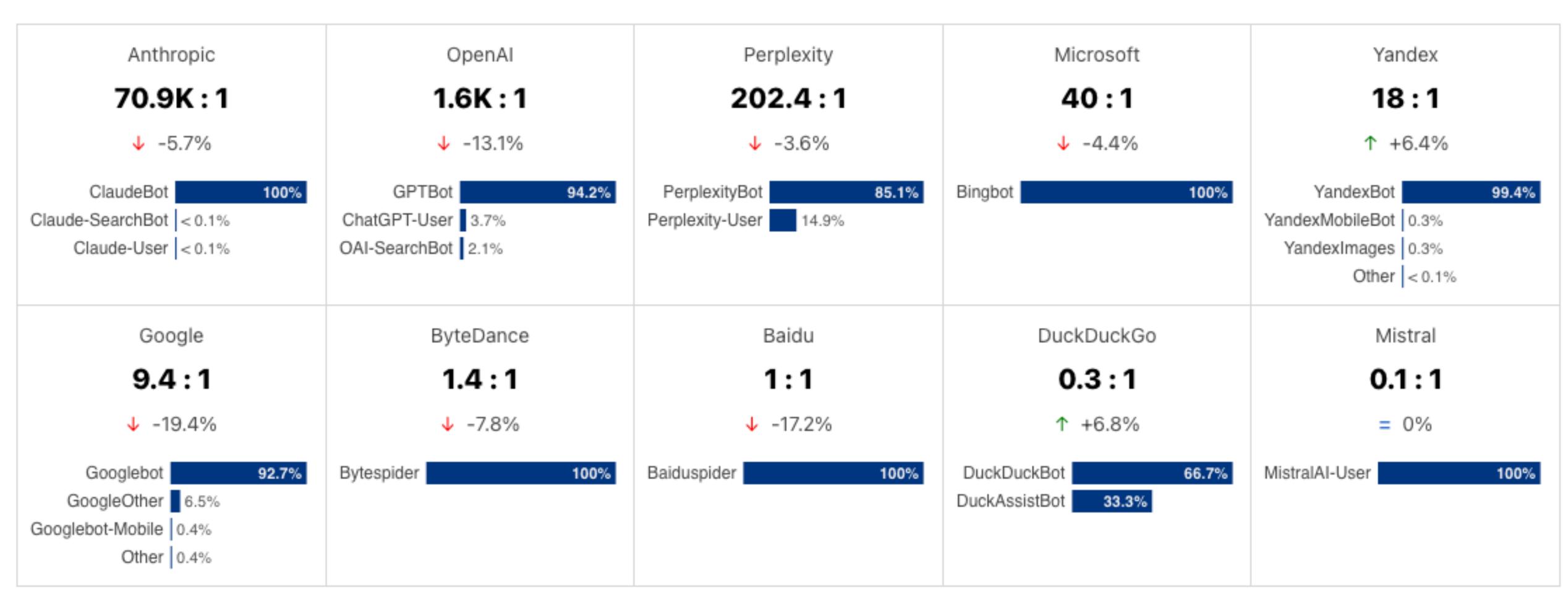
# The machine operates on abstraction without accountability.

### We are the user's line of defense.

#### Agentic web.

#### Crawl-to-refer ratio

Ratio of HTML page crawl requests to HTML page referrals by platform. Change reflects comparison with the previous period 🕐 🔍 🗠



## A little lopsided, isn't it?



Exits are: north, south
> look
I'm on a bridge. I'm
surprised of its
stability as you are.
You can see: nothing.

OK.
The bridge.
Exits are: north, south

Be careful! feel like Gane Dyer s coning ello! Can hear īng. Hhat is often to avoid pain

### We can do better.

### How efficiently & enjoyably can users accomplish the tasks they set out to complete?

### Uncompromising quality and the pursuit of delight.

#### Stubborn Empathy.

