

i nitial-letter: Finishing what we started in 2014

2026 WebKit Contributors Meeting
ChangSeok Oh <changseok@webkit.org>

A drop cap, done by the engine

- A drop cap, a 500-year-old print convention the web could not express
- By hand: manually tuned `font-size` + `float` + `line-height`
 - Breaks on every font change
- Done by the layout engine instead of by hand
 - `initial-letter: 3;` → A dropped initial 3 lines high, 3 lines deep
 - `initial-letter: 3 raise;` → A raised initial 3 lines high, 1 line deep
 - `initial-letter: 3 2;` → A sunken initial 3 lines high, 2 lines deep

Call me Ishmael. Some years ago—never mind how long precisely—having little or no money in my purse, and nothing particular to interest me on shore, I thought I would sail about a little and see the watery part of the world. It is a way I have of driving off the spleen and regulating the circulation. Whenever I find myself growing grim about the mouth; whenever it is a damp, drizzly November in my soul;

`initial-letter: 3;`

`initial-letter: 3 3;`

`initial-letter: 3 drop;`

Call me Ishmael. Some years ago—never mind how long precisely—having little or no money in my purse, and nothing particular to interest me on shore, I thought I would sail about a little and see the watery part of the world. It is a way I have of driving off the spleen and regulating the circulation. Whenever

`initial-letter: 3 1;`

`initial-letter: 3 raise;`

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`initial-letter: 3 2;`

WebKit got here first

- Apple started it in 2014
 - David Hyatt, [bug 136484](#); shipped prefixed in Safari 9
- And backed the standard property: [position: support](#)
 - [WebKit standards-positions #94](#), Nov 2022

Where we actually are

The spec kept moving; the implementation did not.

- 12 years on, no engine implements it fully
- Our grammar: `normal | <number [0,inf]>{1,2}`
 - No `drop` or `raise` keyword

Spec Feature	WebKit	Blink	Gecko
initial-letter unprefixed	✗	✓	✗
drop / raise	✗	✓	✗
size + sink (3 2)	✓	✓	✗
vertical / ruby	⦿	✓	✗
initial-letter-align	✗	✗	✗
initial-letter-wrap	✗	✗	✗

What the patch adds

I prototyped the missing initial-letter features ready for review.

- All `initial-letter` tests pass in `fast/` and `wpt/`, on refreshed references
 - Vertical-mode and ruby cases included
- The hard part was not the code: WebKit’s behavior vs the spec

Spec Feature	WebKit	WebKit + Patch	Blink	Gecko
initial-letter unprefixed	✗	✓	✓	✗
drop / raise	✗	✓	✓	✗
size + sink (3 2)	✓	✓	✓	✗
vertical / ruby	🌓	✓	✓	✗
initial-letter-align	✗	✗	✗	✗
initial-letter-wrap	✗	✗	✗	✗

Where -webkit-initial-letter and the spec disagree

initial-letter and -webkit-initial-letter look alike, but disagree in a few ways.

- -webkit-initial-letter vs. initial-letter

- Fractional sink

```
-webkit-initial-letter: 1.8; → 1.8 1.8 → sink 1.8 → hangs into line 2  
initial-letter: 1.8; → 1.8 drop → sink floor(1.8) = 1 → raised above line 1
```

- Range: the spec rejects values below 1; WebKit accepts them, and stores `normal` as `0 0`

- Size < sink: the spec aligns the top; WebKit aligns the bottom ([#5329](#))

- Not mine to decide alone: community consensus, maybe a spec change

-webkit-initial-letter: 1.8

Drop caps were once set by hand.
Here the engine sizes the letter to the lines it spans and sinks it into the text.

sink = 1.8 (the size, copied) → dropped

initial-letter: 1.8

Drop caps were once set by hand.
Here the engine sizes the letter to the lines it spans and sinks it into the text.

sink = floor(1.8) = 1 → raised

Fractional sink issue

-webkit-initial-letter: 2.51 3

Drop caps were once set by hand. Here the engine sizes the letter to the lines it spans and sinks it into the text below.

size 2.51 < sink 3 → bottom-aligned

initial-letter: 2.51 3

Drop caps were once set by hand. Here the engine sizes the letter to the lines it spans and sinks it into the text below.

size 2.51 < sink 3 → top-aligned (spec)

Over or under alignment?

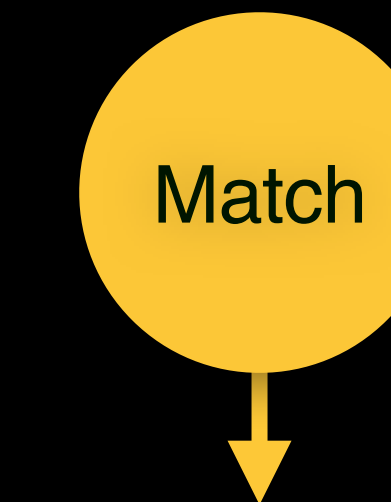
Two ways forward

From the implementer's side, two ways to move initial-letter forward

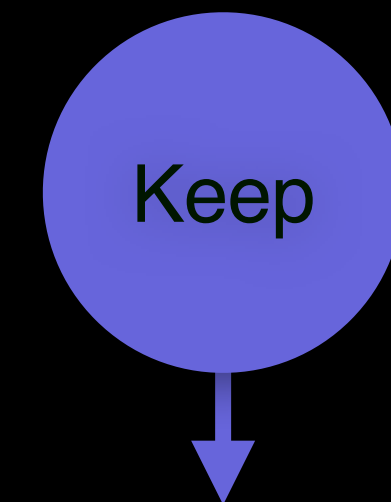
- **Path 1:** Match WebKit to the spec
 - Change `-webkit-initial-letter` directly: add `drop` / `raise`, then fix the differences
 - One property: `initial-letter` + aliases, like `font-kerning`
 - Cost: shipped behavior changes — 1.8 turns raised
- **Path 2:** Keep WebKit's behavior, build consensus, change the spec
 - Meanwhile, two grammars through a cascade alias, like `-webkit-ruby-position`
 - Cost: one value, two meanings
- Either way, the prototype is ready to adapt!

Does `-webkit-initial-letter`

match the spec, or
keep today's behavior?



A shipped property renders differently.



The two must stay distinguishable.

Let's finish it

- [Bug 319736](#)
 - Working branch: [shivamidow/eng/prototype-css-initial-letter-all-in-one](#)
 - Flag [CSSInitialLetterEnabled](#), off by default
- To settle there
 - Path 1 or 2 — or, per difference, which side moves
 - [-webkit-initial-letter](#) leaving enumeration — acceptable?
- Looking for a reviewer — especially for the layout fixes
- WebKit's position on [initial-letter-align](#) / [initial-letter-wrap](#)?