

Make Firefox image scaling down similar to the results in Chrome or IE

Asked 13 years, 7 months ago Modified 3 years, 10 months ago

Viewed 29k times

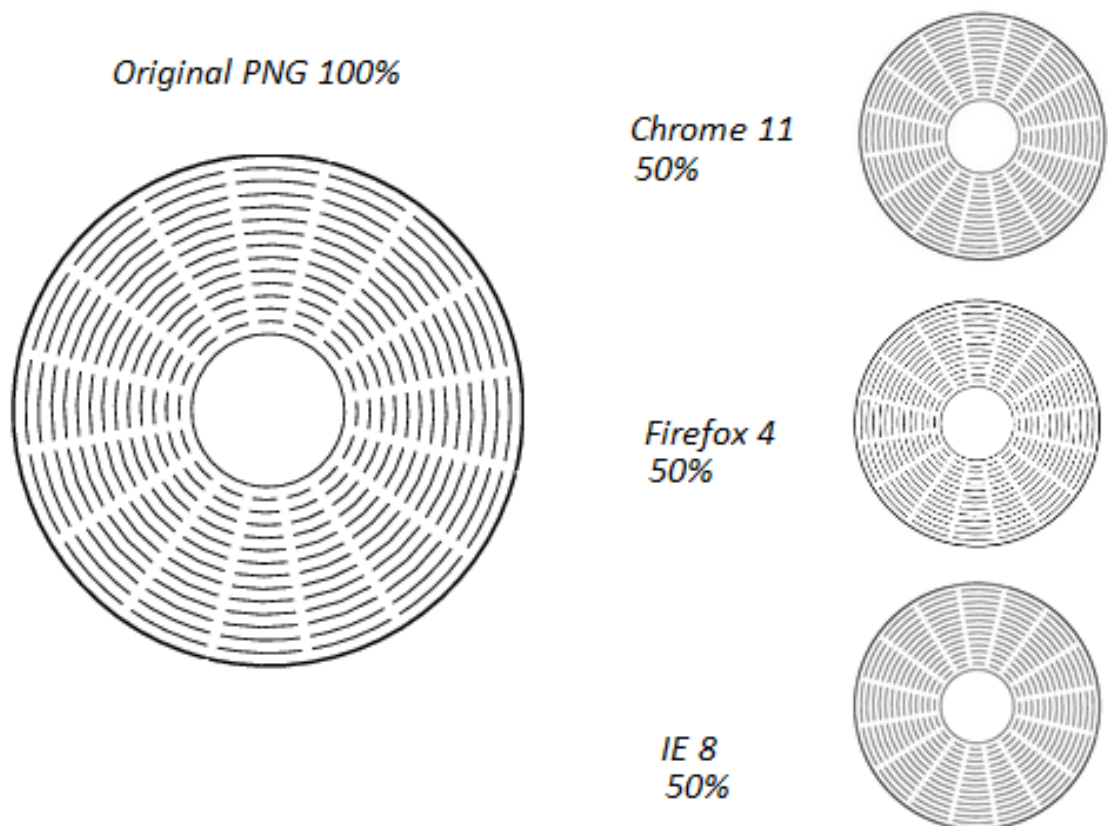


On the left is the original PNG and on the right are versions reduced to roughly half the original size using `width` and `height`.

59



Why does the resized image look so fuzzy in Firefox? Is there anything I can do about it without changing the image file? The fuzziness is particular annoying if the image contains large amounts of math or text.



[image](#)[firefox](#)[resize](#)[Share](#)[Improve this question](#)[Follow](#)

edited Feb 17, 2021 at 17:01

[Zach Saucier](#)

25.9k ● 12 ● 95 ● 158

asked May 6, 2011 at 22:05

[u17](#)

2,824 ● 5 ● 32 ● 44

The question you referenced is about scaling an image up. There are some helpful links in there nevertheless. I did not find a solution yet, however. – [u17](#) May 6, 2011 at 23:23

@Frank The questions are both about scaling. The *direction* of the scaling is irrelevant, unless you know something I don't. The same algorithm would be applied and the same fix(if one exists) would affect both cases. – [Su'](#) May 6, 2011 at 23:25

@Su: Well, the accepted answer there does not work, it makes the result even worse. On developer.mozilla.org/en/CSS/Image-rendering it says for `moz-crisp-edges`: "Use this value to avoid *upscaled* images with sharp edges getting blurry." – [u17](#) May 6, 2011 at 23:44

4 Not the answer, although please note that it's mostly not a good idea to let the browser resize images. – [PeeHaa](#) May 7, 2011 at 1:46

2 someone should write a firefox plugin compatibility layer for chrome, then firefox could die in peace – [Sam Watkins](#) Aug 17, 2012 at 4:49

7 Answers

Sorted by:

Highest score (default)



44



I know this is late, but you can trick firefox into rendering the image better by applying a oh-so-slight rotation. I tried to `translate()` the image to get the same effect... to no avail.

CSS



```
.image-scale-hack {  
    transform: rotate( .0001deg );  
}
```

Javascript

```
if( "MozAppearance" in  
document.documentElement.style ) {  
    $(' .logo img').addClass('image-scale-hack');  
}
```

I avoid browser sniffs at all cost. I borrowed this sniff from [yepnope.js](#) and I don't feel bad about it.

Also noteworthy, this same trick can be used to force sub-pixel image rendering in both webkit and firefox. This is useful for very slow animations - best explained by example:

<http://jsfiddle.net/ryanwheale/xkxwN/>

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edited Nov 24, 2014 at 20:52

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answered Jan 13, 2013 at 21:14



[Ryan Wheale](#)

28.2k ● 10 ● 86 ● 102

-
- 2 You can just use "rotate(0deg)" and it still fixes the issue.
– [shipshape](#) Nov 6, 2013 at 18:57
-

At the time I wrote this I tried `0deg` and the browser seemed smart enough to know not to do anything... which is why I ended up having to "force" the browser to calculate and render a rotated element. I mean, `.0001deg` is unnoticeable to the human eye... why not just stick with that and be safe. – [Ryan Wheale](#) Nov 6, 2013 at 19:11

For me the fix for Firefox was applying position: relative on and off from the image, had to do that on page load.
– [Starwave](#) Nov 28, 2014 at 12:43 ✎



28



There is a [longstanding bug ticket](#) filed in Bugzilla related to Firefox image downscaling. You might like to keep an eye on the ticket to track its eventual resolution or contribute a patch yourself if you feel able to.



The best workaround is to use the `transform` CSS property to apply a tiny rotation to the problem image and force sub-pixel rendering, as detailed in [Ryan Wheale's answer](#).

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edited May 23, 2017 at 12:17

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1 • 1

answered May 7, 2011 at 9:52



Nick

8,530 • 3 • 38 • 33

1 I abused bugzilla by nagging them yet again on that ridiculous ticket. – [Sam Watkins](#) Aug 17, 2012 at 5:24

See my answer below for an easy solution using css3 rotation. – [Ryan Wheale](#) Jan 13, 2013 at 21:15

11 No, it is not fixed. It is marked as fixed, but it is not fixed. – [Brian Webster](#) Feb 12, 2014 at 17:31

woa guys that just saved my ass! even in upscaling he's so bad that in some cases he won't display the full image anymore -.- – [jebbie](#) Feb 13, 2015 at 19:53

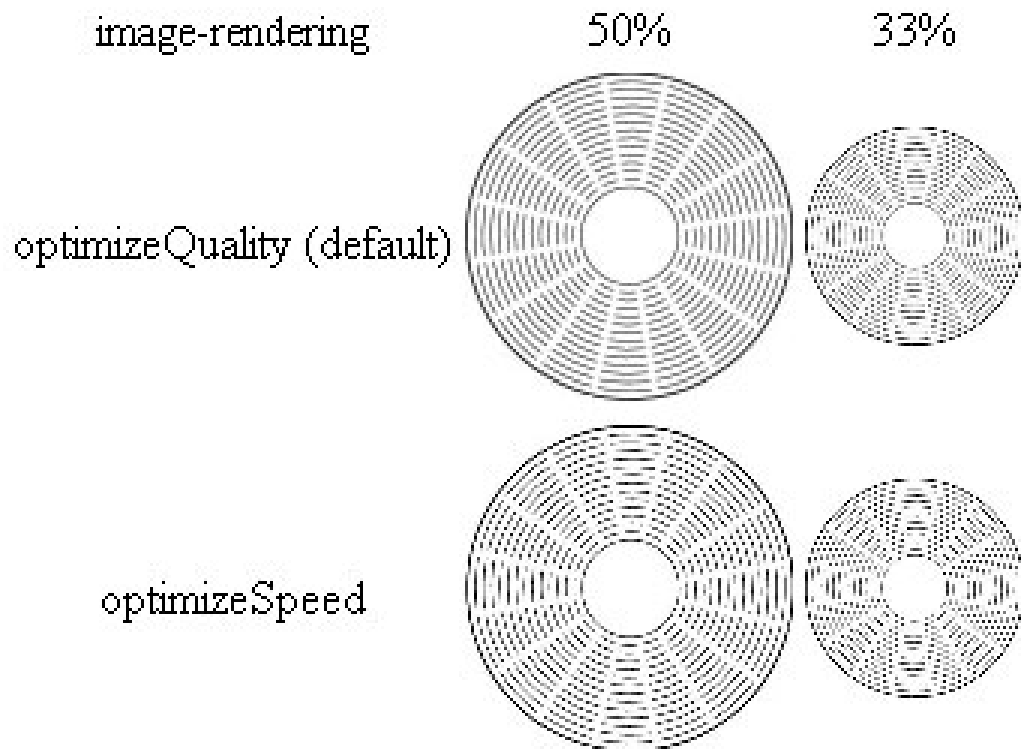


12



The [image-rendering documentation](#) linked from the [Firefox blurs an image when scaled through css or inline style](#) answer which Su' referenced includes instructions for using `image-rendering:optimizeQuality` (which corrected the issue in my testing on FF4) - example:





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edited May 23, 2017 at 12:32



Community Bot

1 • 1

answered May 7, 2011 at 1:46



danlefree

478 • 2 • 12

You say correctly `image-rendering:optimizeQuality` (bilinear resampling) is the default. The Firefox image in the original post also used this resampling technique. Zooming in improves image quality (but also makes the image larger). I get your `optimizeQuality` 50% image when zooming in once or twice from mine. – [u17](#) May 7, 2011 at 9:31

- 2 `image-rendering:optimizeQuality` was the only solution that really worked for my problem - jumping/shaking/trembling images that are downscaled – [Jacek Pietal](#) Jul 14, 2014 at 15:55



I think your answer is in the link from above

<https://developer.mozilla.org/En/CSS/Image-rendering>:

3

'Currently auto and optimizeQuality are equal by default, both result in bilinear resampling.' 'default value IE8+: bicubic (high quality)'



Next see:



<http://www.codinghorror.com/blog/2007/07/better-image-resizing.html> 'When making an image smaller, use

bicubic, which has a natural sharpening effect. You want to emphasize the data that remains in the new, smaller image after discarding all that extra detail from the original image.'

I can think of a couple of possible workarounds, but neither are simple:

1. Resize the image on the server. Either serve it up at half size, and allow Firefox to scale it up to full (which presumably it will be ok at), or have different URLs for the different sizes of image.
2. You may be able to make this work in the browser with plugins (but the example I found doesn't actually do what you need, so I've removed it).

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answered May 7, 2011 at 9:11

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GlennS

5,571 ● 6 ● 29 ● 32

-
- 1 Interesting information. Too bad it appears FF only implements *bilinear resampling* and *nearest neighbor* :(



TL;DR: Image scaling is not likely to be fixed soon. About anywhere.

2

Longer version:



Eris Brasseur has a page that deals nicely with the broader question "Why is just about any image scaling software so bad?"



<http://www.ericbrasseur.org/gamma.html>

Since W3C's position on this matter is roughly that it's better to have an incorrect but equally incorrect implementation everywhere, they shun any proper dealing with Gamma (which would complicate matters slightly). Thus anyone accustomed to web standards is likely to continue ignoring Gamma, leading to the effects described by Eric and in this thread. This ensures that even downscaling is far from being well-defined, as Jeff Atwood puts it in an Article linked in another answer.

In such an environment, methods like Lanczos thrive whose claim to fame is mostly that they perform quite well even if implemented incorrectly.

In other words, browsers are the software equivalent of McDonald's burgers, and that fact will stay. Its implications need not, but the odds are skewed.

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edited Jun 1, 2019 at 19:54



Ed Avis

1,460 ● 21 ● 38

answered Oct 16, 2015 at 16:52



Simon Thum

594 ● 4 ● 16



1



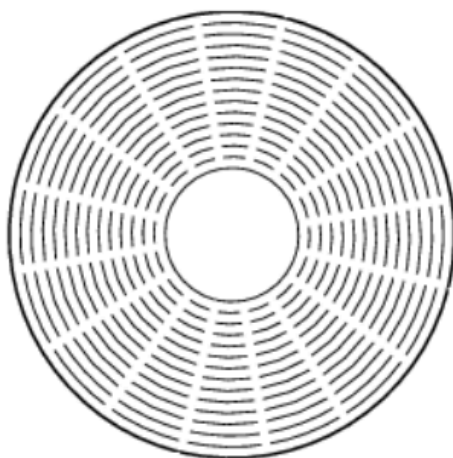
Now (2017) the bug is closed 2 years ago. A short Test:

FF, 50%:

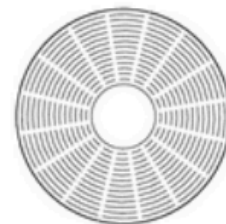
On the left is the original PNG and on the right are versions using `<img width` and `height`. See [Link removed].

Why does the resized image look so fuzzy in Firefox. Is changing the image file. The fuzziness is particular annoying with math or text.

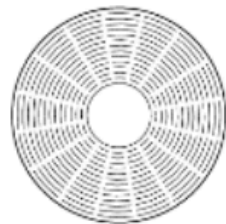
Original PNG 100%



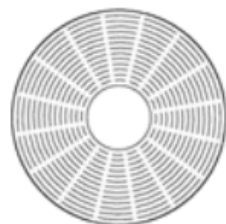
*Chrome 11
50%*



*Firefox 4
50%*



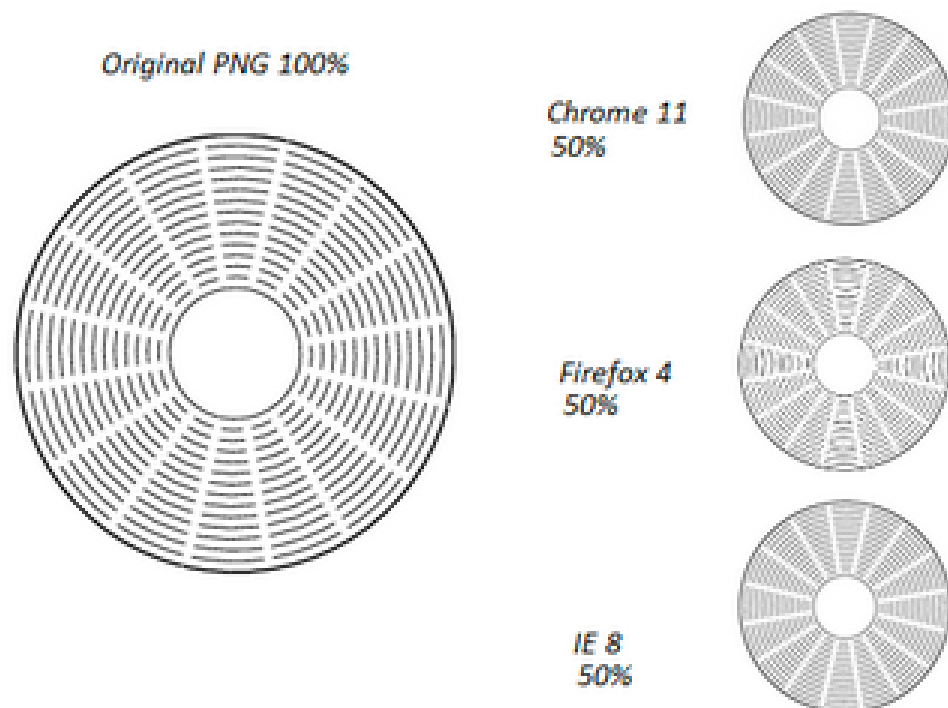
*IE 8
50%*



FF, 25%:

On the left is the original PNG using `<img width` and `height`

Why does the resized image change the image file. The math or text.



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answered Mar 7, 2017 at 11:36



Tino Rüb

809 ● 2 ● 13 ● 27



0



A workaround for this issue is just to resize the original image with an image editor to the desired size and to use the image as it is, without defining its width and height in the style sheet.

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answered Nov 16, 2016 at 19:17



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[tsveti_iko](#)

7,882 ● 5 ● 51 ● 42

