

Solve your UI

Optimize workflow

Avoid back-pedaling and waivers



508
first

in the development lifecycle

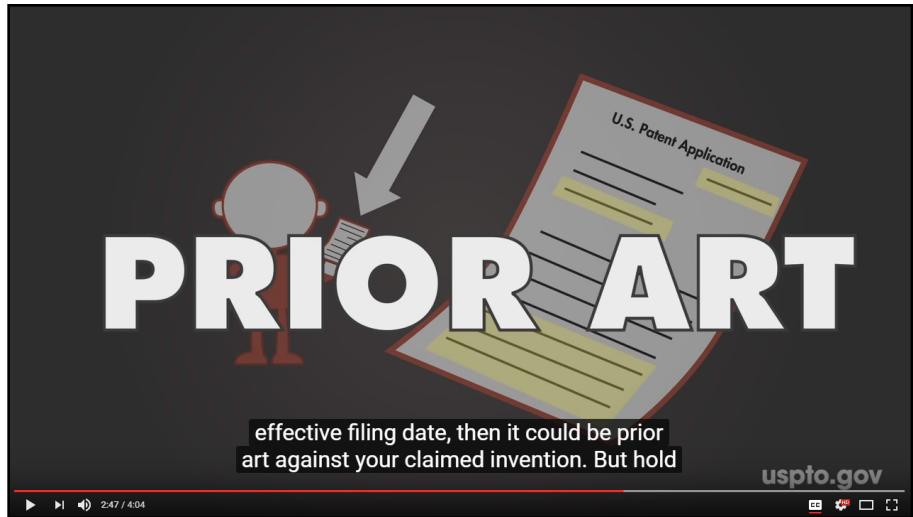
Arva Adams

U.S. Patent and Trademark Office
User Experience

Captions

A key accessibility feature is captions. Naturally, they make sure that people who can't hear the video can understand the video.

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Captions

But how many of you multi-taskers are familiar with this scenario?



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Visuals

Start with our trusty dusty U.S. Web Design System.

Search “U.S. Web Design System” in Google and boom.

The screenshot shows the U.S. Web Design System homepage. At the top, there's a navigation bar with links for "UI components", "Page templates", "Documentation", and "About USWDS". Below the navigation, a sidebar on the left lists various UI components: Overview, Typography, Colors, Icons, Grids, Buttons (which is currently selected), Labels, Tables, Alerts, Accordions, Form controls, Form templates, and Search bar. The main content area is titled "Buttons" and contains the text "Use buttons to signal actions." with a "View in Component Library" link. It then displays three rows of button variations: "PRIMARY BUTTONS" with "Default", "Hover", "Active", "Focus" (which is highlighted with a blue border), and "Disabled" buttons; "SECONDARY BUTTONS" with similar variations; and "BUTTONS ON A DARK BACKGROUND" with "Default", "Hover", "Active", "Focus" (highlighted), and "Disabled" buttons. A "BIG BUTTON" is also shown at the bottom.

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AA and AAA contrast

AAA is the W3C's recommendation for contrast, and AA contrast is mandated by Section 508. You can use many tools to test for and achieve AAA contrast. This makes your content readable by users with color vision issues.

The screenshot shows the Contrast-A web application interface. On the left is a large color wheel with points A and B marked. Below it is a color palette with hex codes for white (#FFFFFF), point A (R:255, G:255, B:255), and point B (R:148, G:7, B:24). To the right are two side-by-side color swatches labeled A and B. Below these are 'Text Sample' boxes. The 'RESULT' section displays the 'Luminance Contrast Ratio' (9.11:1) and 'WCAG 2.0 - Luminance' (AA level, Large text 3:1, Small text 4.5:1). It also includes a 'Color Deficiency Simulation' table for Normal Vision, Protanopia, Deutanopia, and Tritanopia, with 'Text Sample' columns for each. Two large text samples in 'Lorem Ipsum' text are shown on the right, one in a light blue box and one in a red box, both with small 'Text Sample' labels below them.

Contrast-A Find Accessible Color Combinations
In accordance with the Web Content Accessibility Guidelines (WCAG 2.0) defined by the World Wide Web Consortium

COLORS

RESULT

Luminance Contrast Ratio: 9.11:1

RATIO: Normal Vision 9.11:1

LEVEL THRESHOLD:

	Large	Small
AA	3:1	4.5:1
AAA	4.5:1	7:1

▼ Hide Color Deficiency Simulation

Normal Vision	Text Sample
✓	Text Sample
Protanopia	✓
Deutanopia	✓
Tritanopia	✓
Color Blindness	✓

ABOUT

CONTRAST-A WEB V.2.0
The application allows users to experiment with color combinations according to the aspect of accessibility guidelines and to create custom color palettes.

LINKS

COLOR DEFICIENCY

The color deficiency algorithm used can be found here:
CD Algorithm
www.scribus.net

LINKS

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AA and AAA contrast

Users with low vision and imperfect color vision will have less difficulties reading.

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Lorem ipsum

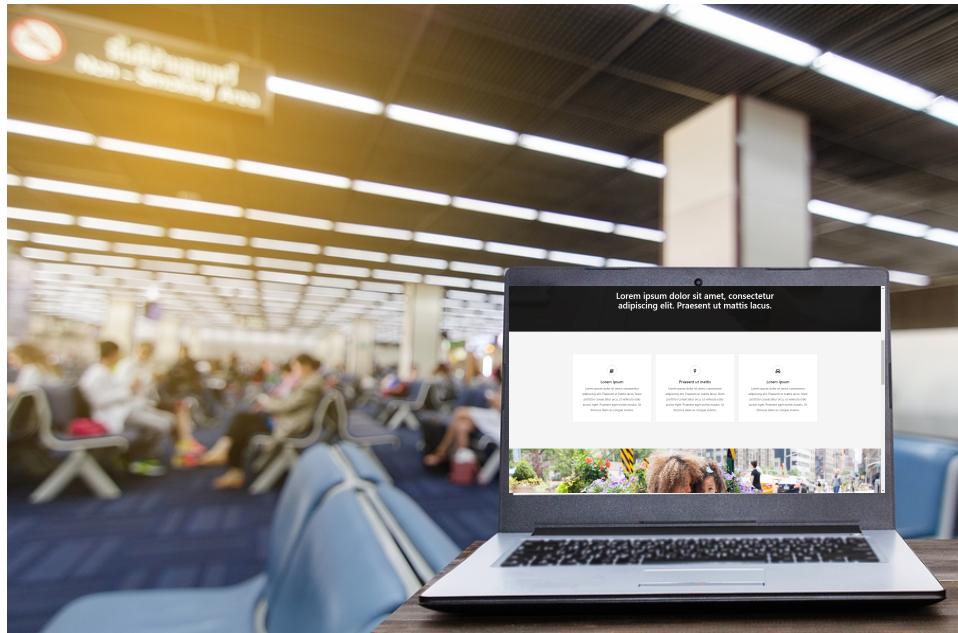
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AA and AAA contrast

And here's the user with perfect
vision in an airport.

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AA and AAA contrast

And now the user with perfect vision is in an airport next to the huge windows overlooking the runway on a super-sunny day.

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Text size

Back to the our **U.S. Web Design System**.

You'll find text size and line spacing guidelines that are accessible.

The screenshot shows the U.S. Web Design System website. At the top, there's a navigation bar with links for "UI components", "Page templates", "Documentation", and "About USWDS". On the right side of the header are buttons for "Download code and design files" and "View on GitHub". Below the header, the page title is "U.S. Web Design System" followed by "UI COMPONENTS". A sidebar on the left lists various UI components: Overview, **Typography** (which is currently selected), Typefaces, Pairings and styles, Typesetting, Links, Lists, Colors, Icons, Grids, Buttons, Labels, and Tables. The main content area is titled "Typography" and contains the following text: "U.S. government websites have common typographic needs: clear and consistent headings, highly legible body paragraphs, clear labels, and easy-to-use input fields. We recommend a font system that uses two open-source font families: Source Sans Pro and Merriweather, both of which are designed for legibility and can beautifully adapt to a variety of visual styles." Below this is a section titled "Typefaces" with a link to "Source Sans Pro". At the bottom of the page, there's a note about Source Sans Pro being an open-source sans serif typeface created for legibility in UI design. A small "A" icon is also present at the bottom right.

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Text size and line spacing

But, in addition to being accessible, look how **readable** and **scannable** content is when it follows good typography.

uspto

Content with sidebar

Manage Search

Search for patents

Two-day event to include discussions among USPTO leadership and experts from industry, academia, and the public

Jul 14, 2015

Inventors are encouraged to search the USPTO's patent database to see if a patent has already been filed or granted that is similar to your patent. Patents may be searched in the USPTO Patent Full-Text and Image Database (PatFT). The USPTO houses full text for patents issued from 1976 to the present and PDF images for all patents from 1790 to the present. All sequences (SEQ ID NOS.) and tables for listed patents or publications are available for viewing, without downloading, by accessing the proper document detail page and then submitting a SEQ ID NO or a mega table ID number.

Global Patent Search Network (GPSN)

Global Patent Search Network (GPSN) enables users to search the full text of multiple international patent collections. The initial collection available will be Chinese patent documentation from the State Intellectual Property Office (Sipo) of the People's Republic of China. Users can search published applications, granted patents and utility models from 1985 to 2012. The data available includes full text Chinese patents, English machine translations and full document images. This collection will be periodically updated to include additional years of coverage.



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Consistent style tags

ALT tags

Meaningful links

Of course, these 508 practices help people who use screen readers.

<h2>

<th>

<td>

<alt=>

Yes! [Learn more at www...](#)
No! [Click here to learn more at www...](#)

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Consistent style tags

ALT tags

Meaningful links

But, they also improve your product's search engine game.
SEO is magically improved with accessibility best practices.

<h2>

<th>

<td>

<alt=>

Yes! [Learn more at www...](#)
No! [Click here to learn more at www...](#)

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Tab and read orders

Naturally, your product's tab order and read order must be correct for your content to be accessible for people who rely on screen readers or can't use a mouse.

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Address

Country *

United States

Address line 1 *

Address line 2 *

City *

State * Zip code *

Cancel Next

Tab and read orders

But, most **form filler-outers** prefer to keep their hands on the keyboard throughout the form, regardless of their visual and physical abilities.

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Address

Country *

United States

Address line 1 *

Address line 2 *

City *

State *

Zip code *

Cancel

Next

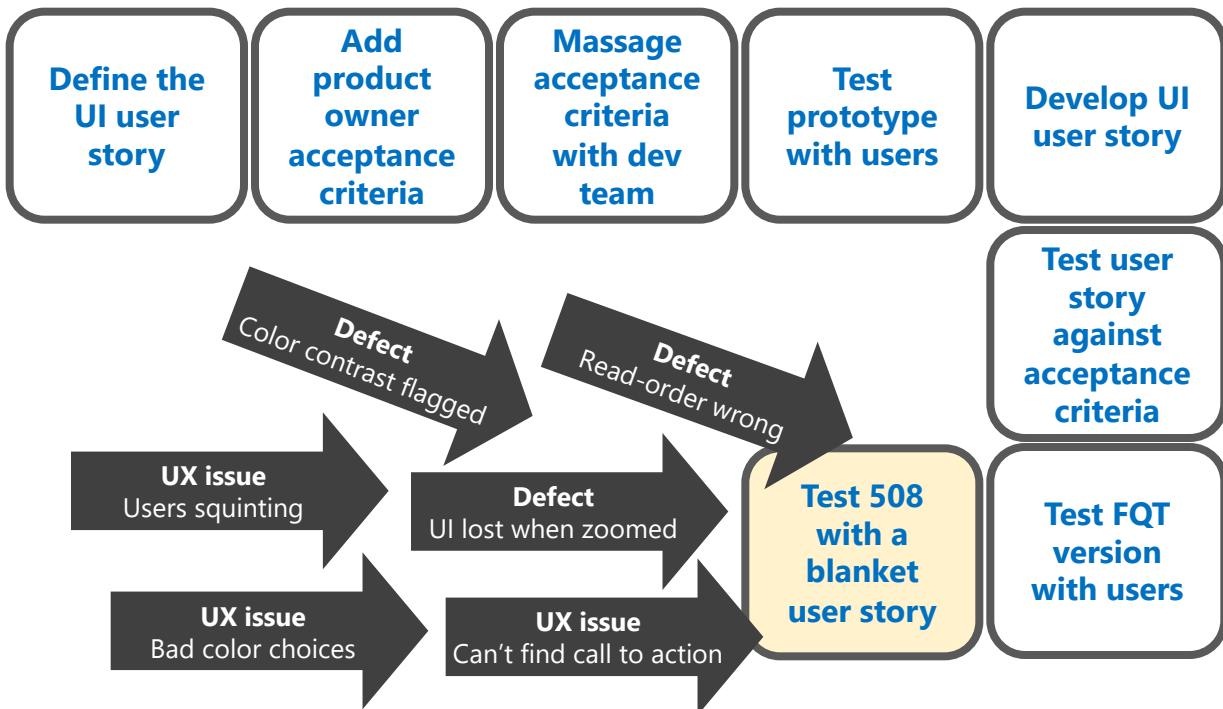
Put accessibility upstream in the development process.

You know the user story must be accessible, by law, so *508 it first*.



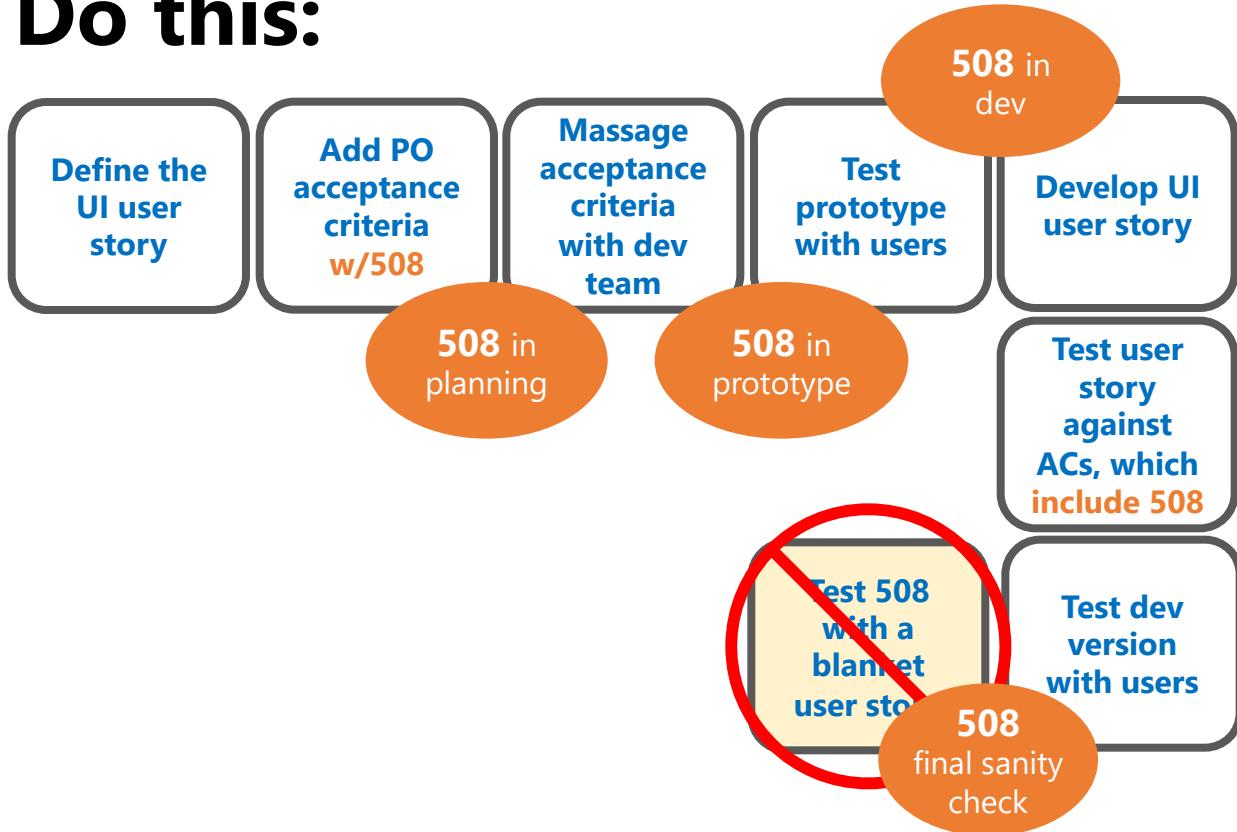
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Develop and test 508 in parallel. Instead of...

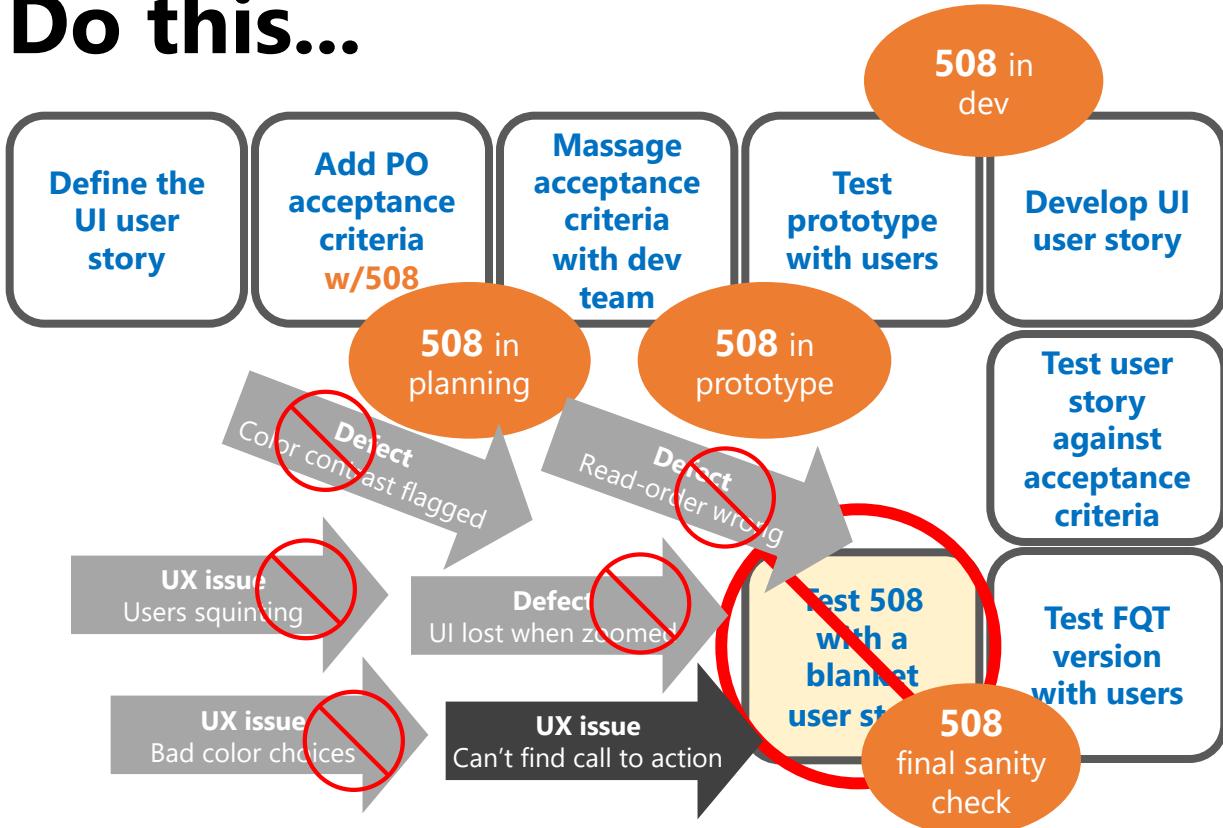


Develop and test 508 in parallel.

Do this:



Develop and test 508 in parallel. Do this...



Solve your UI

Optimize workflow

Avoid back-pedaling and waivers



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in the development lifecycle

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