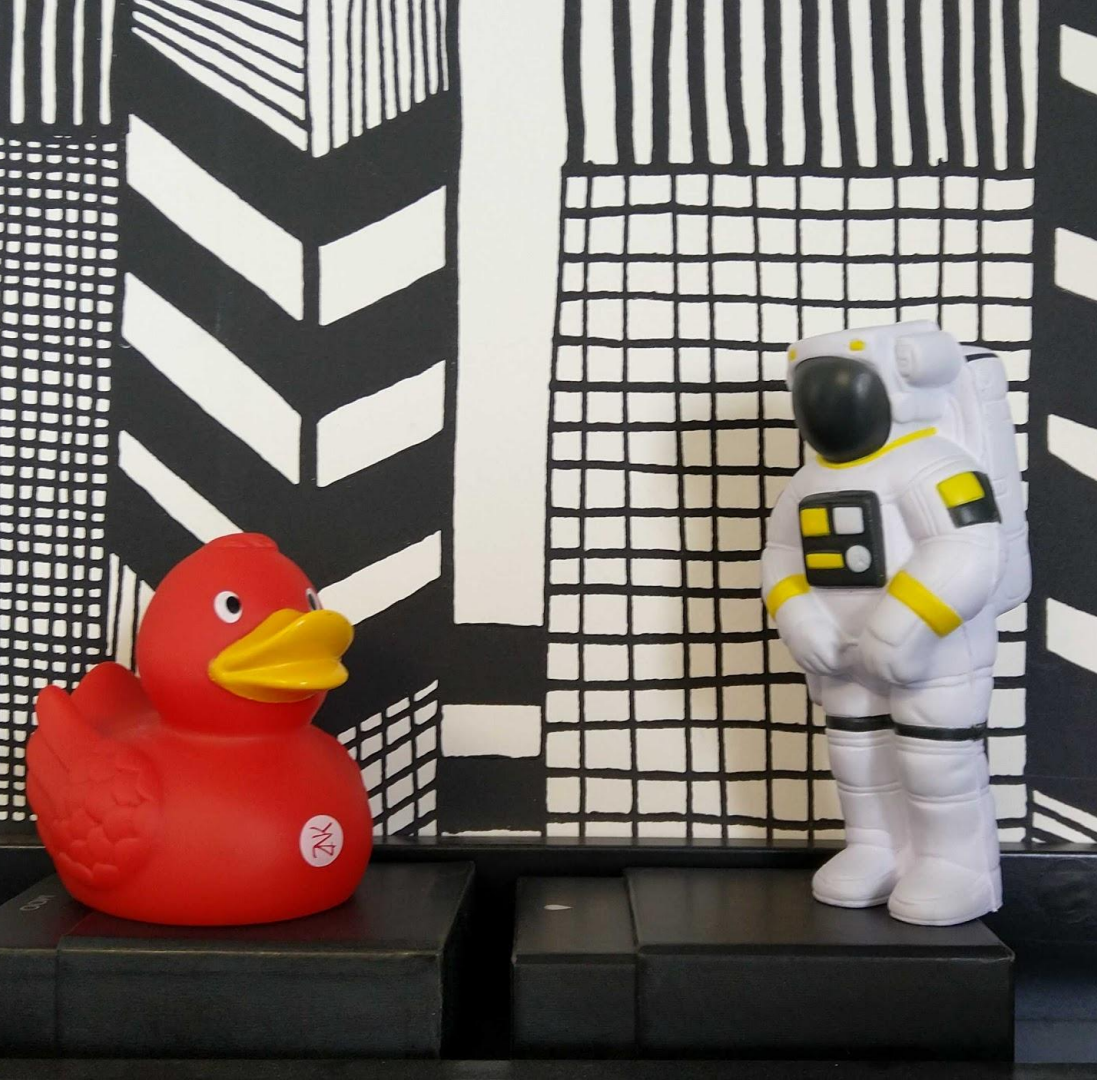


# Tester l'accessibilité

## de son application React



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L'accessibilité concerne ...

Tous les utilisateurs













# L'accessibilité

c'est quoi ?

L'accessibilité du web est la problématique de l'accès aux contenus et services web par les personnes handicapées [...] et plus généralement par tous les utilisateurs, quels que soient leurs dispositifs d'accès (mobile, tablette, etc.) ou leurs conditions d'environnement (niveau sonore, éclairage, etc.).

Source : Wikipédia

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	Permanent	Temporary	Situational
Touch			
	One arm	Arm injury	New parent
See			
	Blind	Cataract	Distracted driver
Hear			
	Deaf	Ear infection	Bartender
Speak			
	Non-verbal	Laryngitis	Heavy accent

# Les types de handicap

- permanent
- temporaire
- situationnel

# Les normes pour l'accessibilité

Web Content Accessibility Guidelines

Standard : WCAG 2.0

Mobile : WCAG 2.1

En France : RGAA (Référentiel Général d'Accessibilité pour les Administrations)





Google Lighthouse



Outil de colorisation de  
Material



colorsafe.co



pAlly

...

# Les différents outils de test

Il y en a un paquet...

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# Axe-core

Librairie open source

Créé par Deque

Ambassadrice : Marcy Sutton

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# Wireframe

Permet de valider la conception de la partie a11y avec les parties prenantes ( po, dev, référent a11y, ux ...)



# Utiliser le plugin axe

The screenshot displays the axe-Coconut plugin interface within a web browser. The top navigation bar includes tabs for Elements, Console, Sources, Network, Performance, Memory, Application, Security, Audits, axe-Coconut, and Redux. The axe-Coconut tab is active, showing a list of issues found on the left and a detailed view of the selected issue in the center.

**Issues Found:**

Issue	Count
Images must have alternate text	1
Text of buttons and links should not be repeated in the image alternative	5
Form elements should have a visible label	1
Page must contain a level-one heading	1
All page content must be contained by landmarks	1
Elements must have sufficient color contrast	9
Hidden content on the page cannot be analyzed	5
CSS Media queries are not used to lock display orientation	1

**Issue description: Images must have alternate text**  
</> Inspect Node Highlight

**Issue description:** Ensures <img> elements have alternate text or a role of none or presentation. Impact: **critical**. [Learn more](#)

**Element location:** `.slogan.img-responsive`

**Element source:**  

```

```

**To solve this violation, you need to:**

Fix at least one (1) of these issues:

- Element does not have an alt attribute
- aria-label attribute does not exist or is empty
- aria-labelledby attribute does not exist, references elements that do not exist or references elements that are empty
- Element has no title attribute or the title attribute is empty
- Element's default semantics were not overridden with role="presentation"
- Element's default semantics were not overridden with role="none"



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## axe-core

3.1.2 • Public • Published 4 months ago

Readme

0 Dependencies

67 Dependents

56 Versions

## axe-core

Greenkeeper enabled

license [MPL-2.0](#) npm [v3.1.2](#) downloads [7M](#) commit activity [320/year](#) contributors [78](#)[gitter](#) [join chat](#) quality [★★★★½](#)

The Accessibility Engine for automated testing of HTML-based user interfaces. Drop the aXe on your accessibility defects!

Thanks for helping us to make axe-core the most widely used HTML accessibility testing library in the galaxy! Share your axe-core story using #axecoresquad or by submitting it [here](#) to get a sweet T-shirt.

## Philosophy

We believe that automated testing has an important role to play in achieving digital equality and that in order to do that, it must achieve mainstream adoption by professional web developers. That means that the tests must inspire trust, must be fast, must work everywhere and must

install

```
> npm i axe-core
```

± weekly downloads

156 051



version

3.1.2

license

MPL-2.0

open issues

160

pull requests

3

homepage

[github.com](#)

repository

[github](#)

last publish

6 days ago

collaborators

# NPM

# Exécuter un test simple

Avec axe-core

```
import React from 'react'
import { run } from 'axe-core'
import { Input } from './Input.component'

describe('<Input />', () => {
  it('should test axe core with jest plugin', done => {

    run(element, {}, (error, result) => {
      expect(error).toBeNull()
      expect(result.violations.length).toBe(0)

      if (result.violations.length > 0) {
        console.error(result.violations)
      }

      done()
    })
  })
})
```

# Exécuter un test avec jest

Avec jest-axe

```
import React from 'react'
import ReactDOMServer from 'react-dom/server'
import { axe as jestAxe } from 'jest-axe'
import { Input } from './Input.component'

describe('<Input />', () => {


  beforeEach(() => {
    html = ReactDOMServer.renderToString(<Input {...props} />)
  })












  it('should test axe core with jest plugin', async () => {
    const results = await jestAxe(html)
    expect(results).toHaveNoViolations()
  })




})
```

[Code](#) [Issues 164](#) [Pull requests 10](#) [Projects 3](#) [Insights](#)

Branch: master [axe-core / doc / rule-descriptions.md](#) [Find file](#) [Copy path](#)

 WilcoFiers Release v3.1.0 (#1102) 773e6dc on 27 Aug 2018

11 contributors           

75 lines (75 sloc) 10.7 KB [Raw](#) [Blame](#) [History](#)   

Rule ID	Description	Impact	Tags	Enabled by default
accesskeys	Ensures every accesskey attribute value is unique	Serious	best-practice, cat.keyboard	true
area-alt	Ensures <area> elements of image maps have alternate text	Critical	cat.text-alternatives, wcag2a, wcag111, section508, section508.22.a	true
aria-allowed-attr	Ensures ARIA attributes are allowed for an element's role	Critical	cat.aria, wcag2a, wcag412	true
aria-allowed-role	Ensures role attribute has an appropriate value for the element	Minor	cat.aria, best-practice	true
aria-dpub-role-fallback	Ensures unsupported DPUB roles are only used on elements with implicit fallback roles	Moderate	cat.aria, wcag2a, wcag131	true
aria-hidden-body	Ensures aria-hidden='true' is not present on the document body.	Critical	cat.aria, wcag2a, wcag412	true
aria-required-attr	Ensures elements with ARIA roles have all required ARIA attributes	Critical	cat.aria, wcag2a, wcag412	true
aria-required-children	Ensures elements with an ARIA role that require child roles contain them	Critical	cat.aria, wcag2a, wcag131	true

# Les règles

<https://github.com/deque/axe-core/blob/master/doc/rule-descriptions.md>

# Passer une règle

```
it('should test axe core with jest plugin', async () => {  
  
  const results = await jestAxe(html, {  
    rules: {  
      // for demonstration only,  
      // don't disable rules that need fixing.  
      'label': { enabled: false }  
    }  
  })  
  
  expect(results).toHaveNoViolations()  
})
```



# Exécuter un test e2e

avec Cypress

```
context('Axe core test', () => {  
  
  beforeEach(() => {  
    cy.visit('/')  
    cy.injectAxe()  
  })  
  
  it('Has no a11y violations after button click', () => {  
    cy.get('button').click()  
    cy.checkA11y()  
  })  
})
```

axe http://eleven-labs.com

Running axe-core 3.1.2 in chrome-headless

Testing <http://eleven-labs.com> ... please wait, this may take a minute.

**axe-webdriverjs deprecated** Error must be handled as the first argument of axe.analyze. See: #83 <https://github.com/dequelabs/axe-core/blob/master/doc/tips-and-tricks.md#using-axe-core-with-webdriver>  
test-urls.js:85:8

**Violation of "html-has-lang" with 1 occurrences!**

Ensures every HTML document has a lang attribute. Correct invalid elements at:

- html

For details, see: <https://dequeuniversity.com/rules/axe/3.1/html-has-lang>

**Violation of "image-redundant-alt" with 1 occurrences!**

Ensure button and link text is not repeated as image alternative. Correct invalid elements at:

- a[href=""]

For details, see: <https://dequeuniversity.com/rules/axe/3.1/image-redundant-alt>

**Violation of "landmark-one-main" with 1 occurrences!**

Ensures the page has only one main landmark and each iframe in the page has at most one main landmark. Correct invalid elements at:

- html

For details, see: <https://dequeuniversity.com/rules/axe/3.1/landmark-one-main>

**Violation of "link-name" with 2 occurrences!**

Ensures links have discernible text. Correct invalid elements at:

- a[href\$="recrutement"]
- .navigation\_link--right

For details, see: <https://dequeuniversity.com/rules/axe/3.1/link-name>

**Violation of "region" with 1 occurrences!**

Ensures all page content is contained by landmarks. Correct invalid elements at:

- html

For details, see: <https://dequeuniversity.com/rules/axe/3.1/region>

6 Accessibility issues detected.

# Utiliser Axe cli

```
$ npm i -g axe-cli
```

```
$ axe http://eleven-labs.com
```

# Conclusion

Permet de tester par composant

Permet de tester l'UI

Ne couvre pas tous les besoins

- 30 à 50 % des problèmes

Ne remplace les tests humains

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Questions ...?