How to perform automatic evaluation for Apps

Accessibility and Usability Summit
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About Abra

Our mission is to make app accessibility straightforward. Abra® builds software to find, solve and prevent accessibility issues.

- Abra is facilitator of the W3C Mobile Task Force.
- Abra is initiator of the Appt Foundation and creator of knowledge base appt.org.

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Intro

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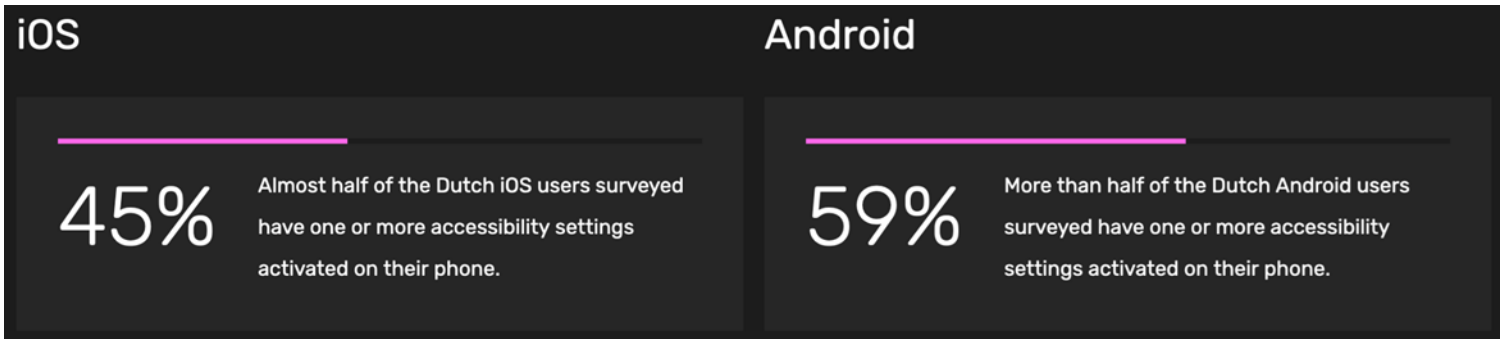
Why is accessibility important?

- Over 1 billion people in the world have a disability[1]
- 50% of people use accessibility features on their mobile devices[2]
- After 5 years of legislation, very few websites and apps are accessible[3]

[1] who.int/news-room/fact-sheets/detail/disability-and-health

[2] appt.org/en/stats

[3] European Web Accessibility Directive Monitor 2022-2024



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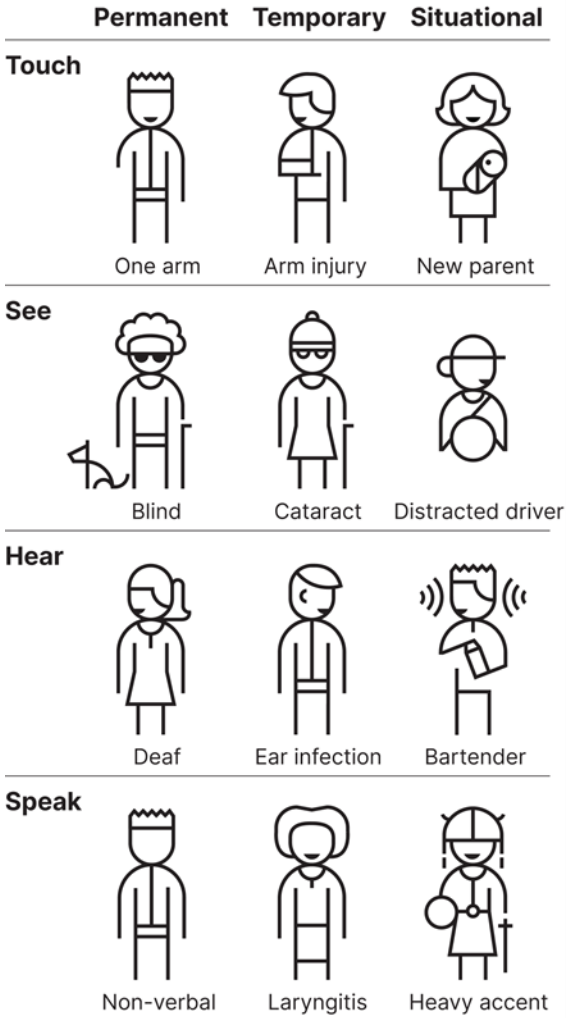
Disabilities

- Cognitive impairments
- Hearing impairments
- Mobility impairments
- Speech impairments
- Visual impairments
- Impairments caused by aging

etc. (et cetera).



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Accessibility features

- Screen Reader
- Switch Control
- Keyboard Access
- Voice Control
- Larger Text
- Dark Mode

etc.

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Guidelines

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Accessibility guidance

W3C

World Wide **Web** Consortium

WCAG

Web Content Accessibility Guidelines

MATF

Mobile Accessibility Task Force

Appt

App Accessibility

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Testing

How to approach testing

- Automated testing
- Manual testing
- User testing

- Semi-automated testing

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Automated testing

- Limited providers
- Source code
- Benefits and limitations

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Limitations

- No ACT rules
- Limited coverage

Manual testing will be needed for a large number of issues

Manual testing

- Requires in-depth WCAG knowledge
- Using accessibility features:
  - Screen reader
  - External keyboard
  - Text scaling
- Benefits
- Limitations

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Manual testing

Identify app

- Name
- iOS/Android
- Version

Identify issue

- Screenshot + annotation
- Element description
- Issue description

Identify screen

- Name
- Path

Identify solution

- Background information
- Code sample

User testing

- Awareness
- User experience
- Benefits and limitations

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Semi-automated testing

Automating manual steps

using Abra Desktop:

1. Identify app
2. Identify screen
3. Identify issue
4. Identify solutions

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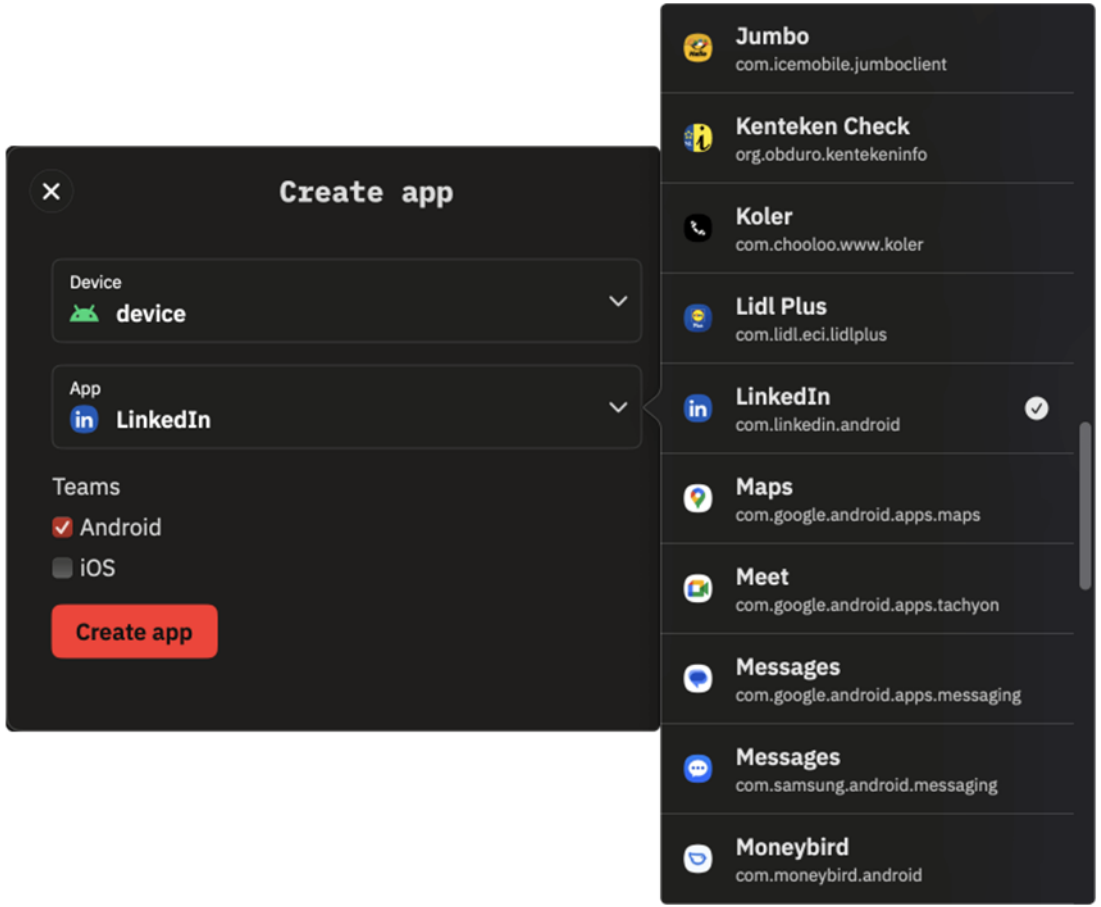
Identify app

- Name
- iOS/Android
- Version

Automatically extracted from connected device.

Including icon and identifier.



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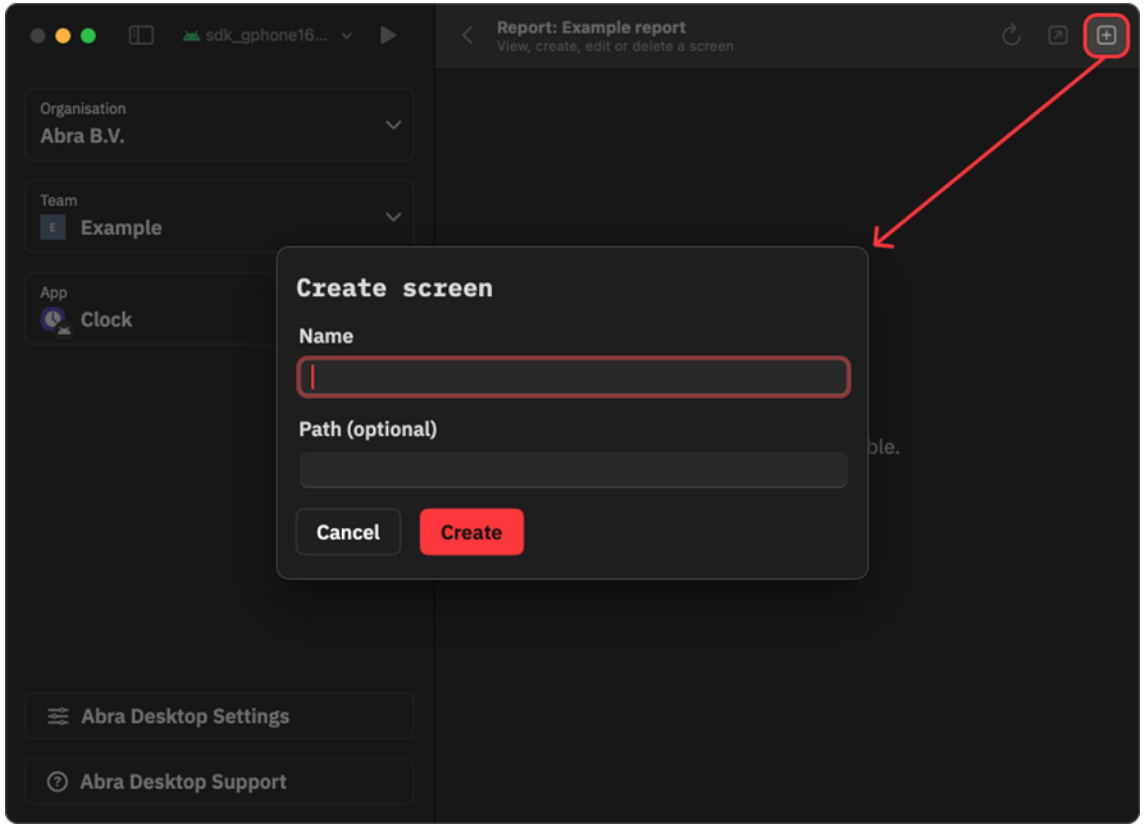
Identify screen

- Name
- Path

Name could be extracted based on device screen.

Path could be extracted based on interactions.

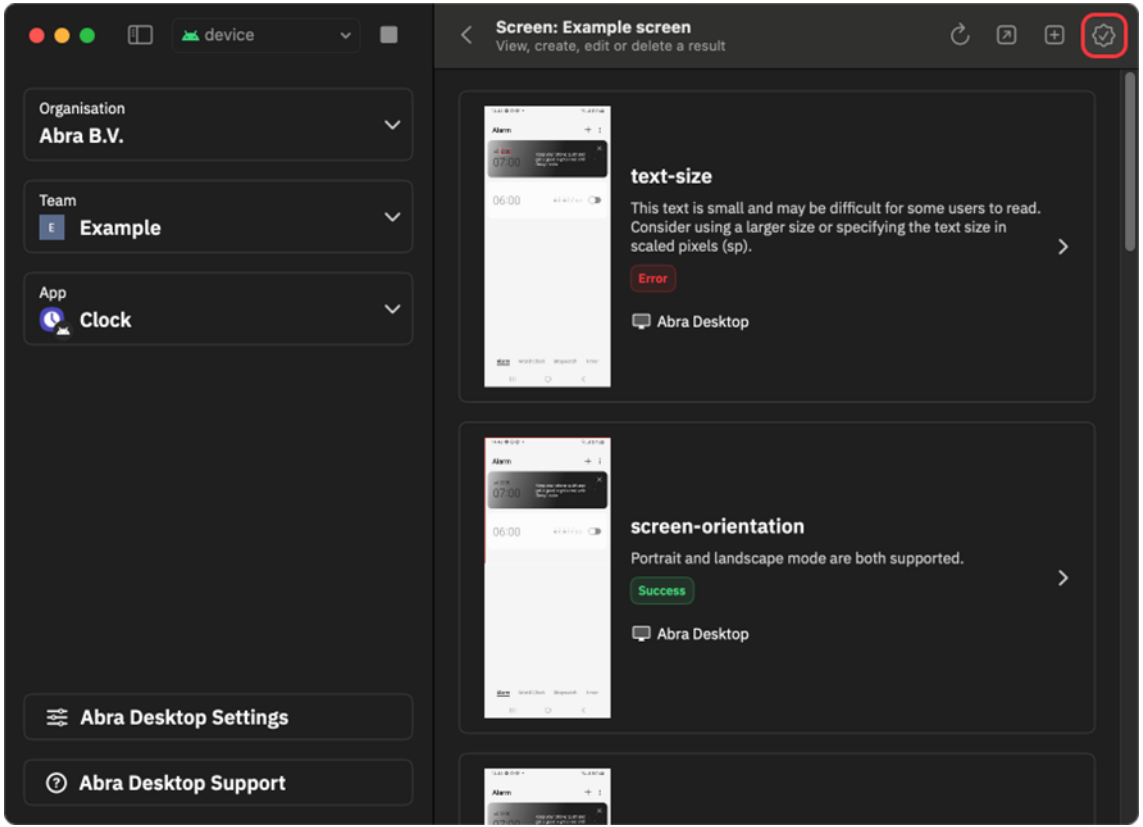


Identify issue - Fully automated

- Screenshot + annotation
- Element description
- Issue description

All information is extracted.

Uploaded to Abra Dashboard.



Identify issue - Semi-automated

Identify issue

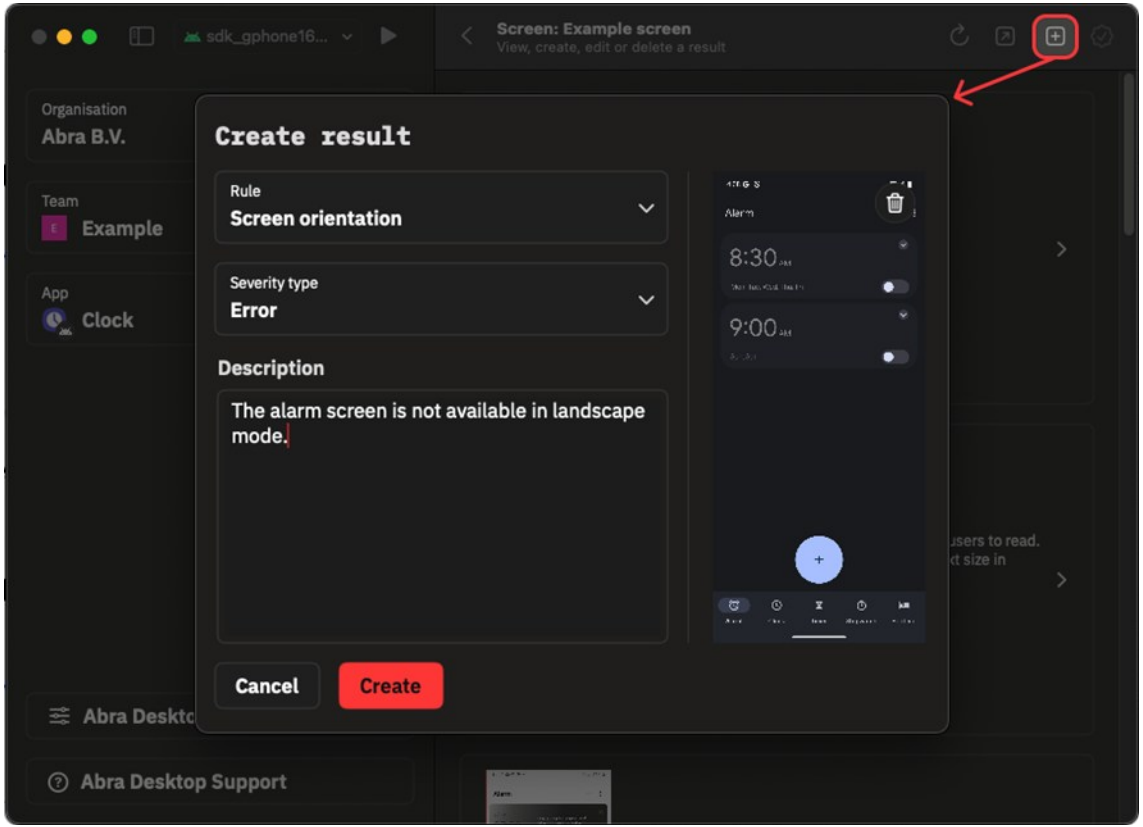
- Screenshot + annotation
- Element description
- Issue description

Automatic screenshot

Automatic snapshot

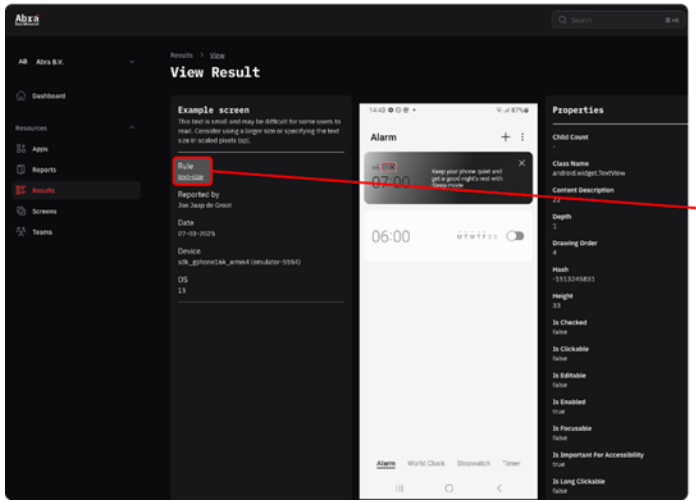
Rule dropdown

Uploaded to Abra Dashboard



Identify solution

- Background information
- Code sample



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Examples

Is your app accessible?

1. Orientation
2. Touch Target Size
3. Label
4. Name, Role, Value, State
5. Headings
6. Text Scaling

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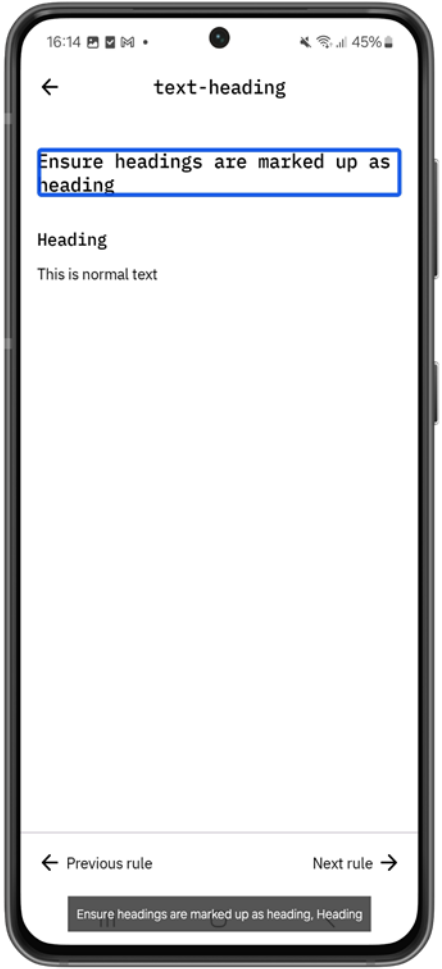
1. Orientation

Automated Manual

- Every screen must be usable in portrait and landscape orientation
- Note: there are **4** orientations



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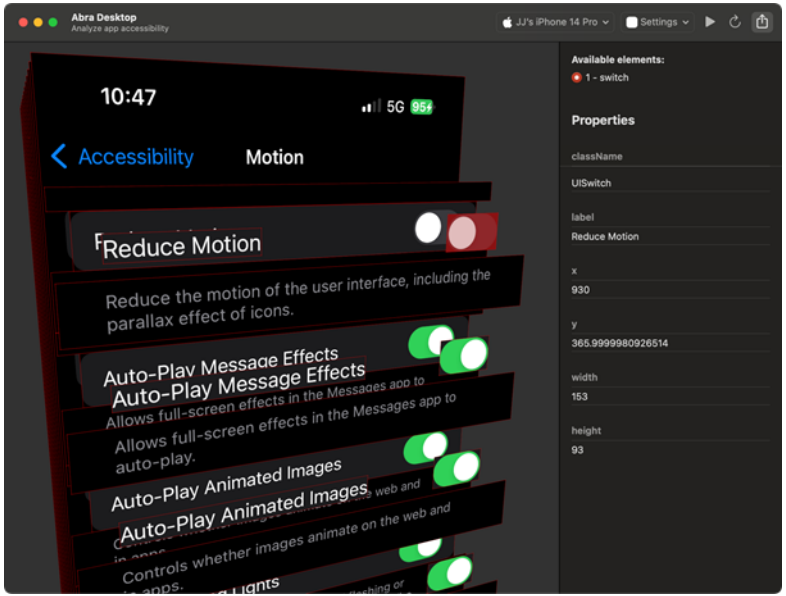
2. Touch Target Size

- Targets are interactive elements
- They must be at least 24x24 points
- Or have 24 points spacing
- Allowing users to activate them easily



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3. Label

Automated | Manual | User

- Provide alternative text for non-text content that provides information.
- Non-text content: images, icons, etc. (et cetera).

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4. Name, Role, Value, State

Automated Manual

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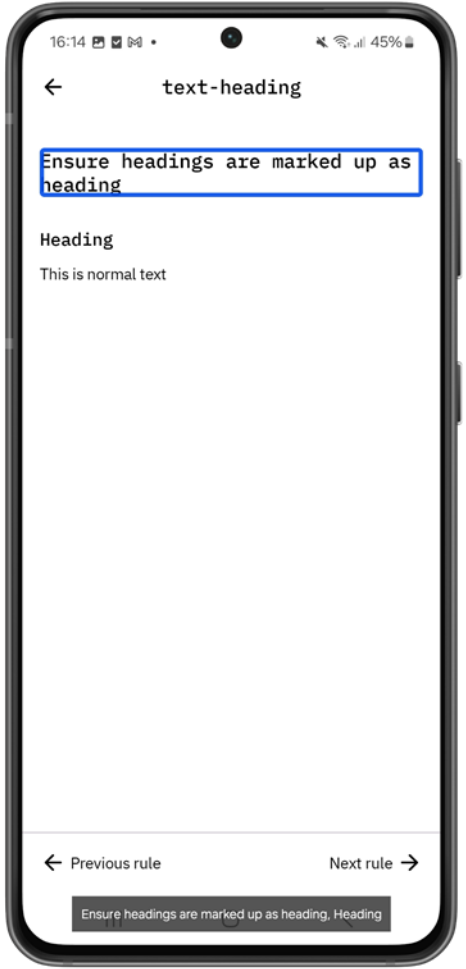
5. Headings

Automated Manual User

- Headings should be marked up in code
- Not only visually (bold)
- Users can jump to headings



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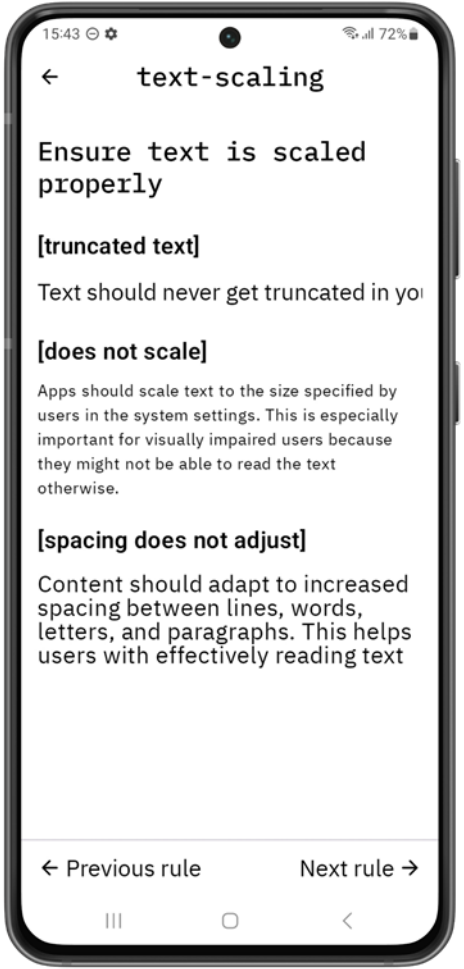
6. Text Scaling

Automated Manual User

- Text must scale to at least 200%
- Text must not be truncated
- Text must not be covered
- Text must not be clipped



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Outro

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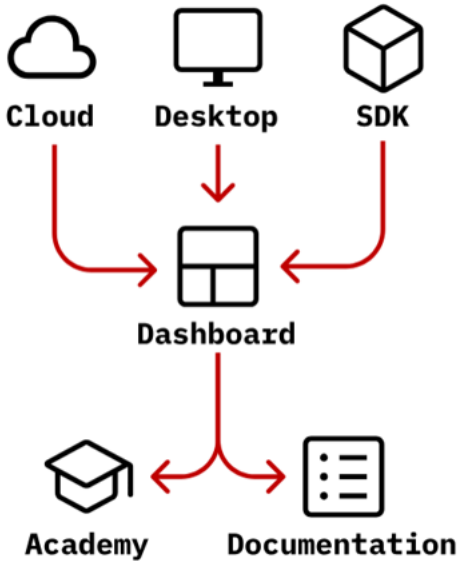
Automated accessibility testing

Home > Our products

Our products

We have created multiple products to help you make your apps accessible. Our software automatically detects accessibility issues in apps. Together with your team you can view all issues from your dashboard. In our academy you can find solutions for each issue.

Schedule demo



Check: abra.ai/products

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Questions?

Ask me!

- Abra: abra.ai
- Appt Foundation: appt.org
- Paul van Workum: paul@abra.ai

Download slides

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