



What's New In Axe

The Standard in Accessibility



THANKS

Axe is a community

Community contributions:

- 8 million npm downloads
- over 25 million installs
- 78 contributors – 49 companies, 4 continents
 - Facebook, eBay, Google, Microsoft
- 68 dependent npm projects
- Multiple online and enterprise products using the library



Axe milestones over last year

- Released automation support for any WCAG 2.1 S.C.s
- Shadow DOM support
- Included in Chrome Audit tab and Google Lighthouse
- Included in <http://web.dev/>
- Doubled the speed (thanks to Google)
- added ability to choose the axe-core version
- added ability to filter results



The community is getting stronger

Introducing Min Kwan Park from
Microsoft



Axe for Windows

- Analyze Windows app accessibility
- Built on UIAutomation supported by many versions of Windows
- Checks based on 508 guidelines and the UIA requirements(MSDN)
 - property values
 - Patterns
 - relationships of UI elements and more
- A part of Accessibility Insights for Windows
 - will be available as a member of axe family soon

An abstract graphic in the top half of the image features three white circles of equal size. They are connected by thin white lines: a horizontal line connects the first two circles, and a diagonal line connects the second and third circles. Additionally, there are several long, thin, curved white lines that sweep across the upper portion of the frame, creating a sense of motion and depth.

Axe for Windows Demo

Results in Accessibility Insights for Windows

The screenshot displays the 'Accessibility Insights for Windows - Test - Test results' window. The interface includes a sidebar with navigation options: 'Live Inspect > Tests', 'FastPass', and 'Automated Checks' (which is currently selected). The main content area shows the target window 'Wildlife Manager 2.0' and reports '15 failures were detected' under 'AUTOMATED CHECKS'. A list of specific failures is shown, each with a checkbox, a description, a WCAG reference, and a count of failures. The first six items are unchecked, while the last five are checked and each has a '+ New bug' link next to it.

Target: window 'Wildlife Manager 2.0' [View results in UIA tree](#)

AUTOMATED CHECKS
15 failures were detected.

<input type="checkbox"/>	Element path	Bug
<input type="checkbox"/>		A button must not support both the Invoke and Toggle patterns. WCAG 4.1.2 (1 2)
<input type="checkbox"/>		An element's BoundingBox must be contained within its parent element. Section 508 502.3.1 (1 3)
<input type="checkbox"/>		Focusable sibling elements must not have the same Name and LocalizedControlType. WCAG 4.1.2 (1 2)
<input type="checkbox"/>		The ControlType and LocalizedControlType must not both be set to "custom." Section 508 502.3.1 (1 1)
<input type="checkbox"/>		The Name must not include the same text as the LocalizedControlType. Section 508 502.3.1 (1 1)
<input type="checkbox"/>		The Name property must not include the element's control type. Section 508 502.3.1 (1 1)
<input checked="" type="checkbox"/>		The Name property of a focusable element must not be null. Section 508 502.3.1 (1 5)
<input checked="" type="checkbox"/>	button "	+ New bug
<input checked="" type="checkbox"/>	custom "	+ New bug
<input checked="" type="checkbox"/>	edit "	+ New bug
<input checked="" type="checkbox"/>	list view "	+ New bug
<input checked="" type="checkbox"/>	menu "	+ New bug

Results in CI/CD pipeline(Azure Dev Ops)

Azure DevOps

WildLife / WildLife app / Pipelines / Builds / WildlifeManager - New Res... / #6339

WildLife app

Overview

Boards

Repos

Pipelines

Builds

Releases

Library

Task groups

Deployment groups

Test Plans

Artifacts

#6339: Enable axe window scan

Manually run fri at 8:55 pm by Ashwin Kalbhor Wildlife app users/askalbho/minparChanges 3324ac0

Logs Summary Accessibility* Tests

Path	First discovered	Repro Steps	Hit Count
NameNotNull: The Name property of a focusable element must not be null. 5 Failures			
/ window 'Wildlife Manager 2.0' / custom "	6253	Open the Scan result file in Keros Fo	1
/ window 'Wildlife Manager 2.0' / button "	1417	Open the Scan result file in Keros Fo	1
/ window 'Wildlife Manager 2.0' / menu "	1417	Open the Scan result file in Keros Fo	1
/ window 'Wildlife Manager 2.0' / edit "	1417	Open the Scan result file in Keros Fo	1
/ window 'Wildlife Manager 2.0' / list view "	1417	Open the Scan result file in Keros Fo	1
LocalizedControlTypeNotCustom: The ControlType and LocalizedControlType must not both be set to "custom." 1 Failure			
ButtonInvokeAndTogglePatterns: A button must not support both the Invoke and Toggle patterns. 1 Failure			
SiblingUniqueAndFocusable: Focusable sibling elements must not have the same Name and LocalizedControlType. 1 Failure			
NameExcludesControlType: The Name property must not include the element's control type. 1 Failure			
NameExcludesLocalizedControlType: The Name must not include the same text as the LocalizedControlType. 1 Failure			

CI/CD pipeline integration

Azure DevOps

WildLife / WildLife app / Pipelines / Builds / WildlifeManager - New Res... / #6339

WildLife app

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Axe is more than just Web

- **axe-core**: Web open source rules
- **axe-windows**: Windows native open source rules



Deque is investing more

Introducing Chris McMeeking from
Deque

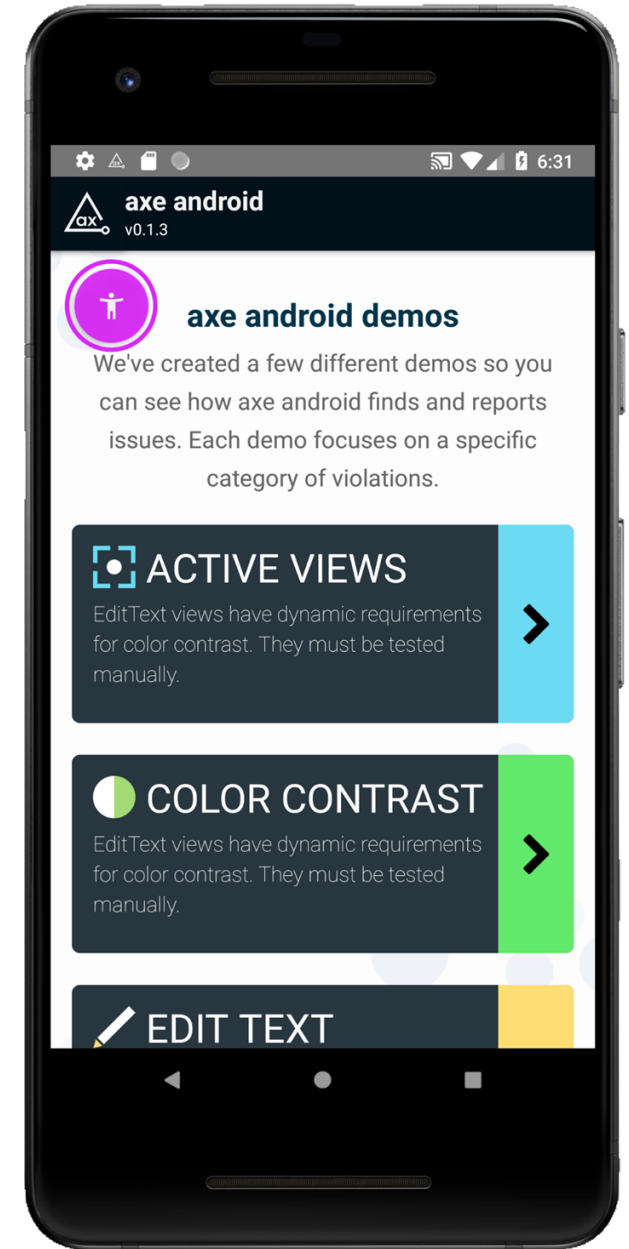


Axe for Android

A **free** Mobile Application which...

- Analyzes Mobile apps for **WCAG** Compliance
- Supports **powerful** tools and integrations
- Is super **easy** to use. Start in 2 minutes.

Follow along with my demo.





Axe for Android Demo

Axe manifesto

Zero false positives: when a false positive is discovered we will respond within two weeks

Community makes us stronger: We don't know what we don't know! The Android ecosystem is complicated. Help us hunt false positives down! We will not be perfect, but our process is fast enough to move that way quickly.

Read more about this on our Open Source GitHub Readme under axe manifesto.

Stacking up axe for Android - Rules Overview

Generally Available

- Content Labels
- Touch Target Size
- Clickable Items
- Text and Image Contrast

Only in axe

- Focus Order
- Focus Management
- Info and Relationships
- 1.1 - Interruptive Announcements
- 1.1 - Focus Maintains Context

Axe for Android is the most comprehensive analysis tool for Native Android apps in the world.

Axe for iOS - Coming Summer 2019

Axe iOS will be different, but here's what we know:

- It will **not** be a Mobile App.
- It will have **similar** capabilities to Axe Android.
- It will **NOT** require being built into your code.

Stacking up axe for iOS - Rules Overview

Generally Available

- Content Labels
- Touch Target Size
- Color Contrast of Text Only
- Conflicting Traits

Only in axe

- Info and Relationships
- Color Contrast of Images
- Focus Order
- Dynamic Type
- Control Spacing

Axe for iOS is (will be) the most comprehensive analysis tool for Native iOS apps in the world.

Why axe for iOS and axe for Android

This is not a pet project, this is what we do.

The **axe** brand is backed by the leading accessibility experts in the world, and our mobile libraries are no different.

Collaborate with us! We respond quickly to a volatile ecosystem. If there are false positives in our rules it is because we have not been notified. We are working on supporting trivial ways for you to report these types of issues.

Call to Action

Star our Open Source Repositories

<https://github.com/dequelabs/axe-ios>

<https://github.com/dequelabs/axe-android>

Install the Android app

search: WCAG axe

Axe is more than just Web

- **axe-core**: Web open source rules
- **axe-windows**: Windows native open source rules
- **axe-android**: Android native open source rules
- **axe-ios**: iOS native open source rules





Introducing AXRL

```
{
  "@context": "TBD",
  "@type": "WebPageTest",
  "testSubject": "http://example.com",
  "results": [
    {
      "@type": "TestFailure",
      "impact": "Critical",
      "description": "Web pages must have a title",
      "remediation": "Add a title to the web page",
      "helpUrl": "https://dequeuniversity.com/rules/axe/3.1/document-title",
      "node": {
        "@type": "DOMNode",
        "codeSnippet": "<html>...</html>",
        "selector": "html"
      }
    },
    {
      "@type": "TestSuccess",
      "helpUrl": "https://dequeuniversity.com/rules/axe/3.1/color-contrast",
      ...
    }
  ]
}
```

<https://github.com/dequelabs/axrl>

Introducing AXRL

- Automated and Manual
- Web issues
- Windows native issues
- iOS native issues
- Android native issues
- Expandable to support other platforms and formats

Please contribute to make it stronger

<https://github.com/dequelabs/axrl>

Accessibility Guidelines Working Group

Accessibility Conformance Testing Rules Format 1.0

Standardizes how rules are defined

Format is being used to standardize how specific tests are done

<https://www.w3.org/TR/act-rules-format/>

But we haven't forgotten axe-core

- axe-core 3.2.0 released last week
 - 31 bug fixes
 - 14 new features
 - 3 performance improvements
 - 4 new rules

New Rule: aria-hidden-focus

Finds elements that are focusable in an aria-hidden="true" tree

These announce as “blank” to screen reader users

New Rule: form-field-multiple-label

Used to be part of the label rule

Allows easier diagnosis of the problem

New Rule: label-content-name-mismatch

Compares the visible text label to the accessible name

New Rule: landmark-complementary-is-top-level

Ensures that complementary landmarks are at the top level (best practice)

Summary of upcoming milestones

Windows open source

Android free

Android open source

iOS free

iOS open source

interchange format



An abstract graphic in the top left corner of the slide. It features three white circles of equal size. Two circles are connected by a horizontal line segment. A third circle is positioned further to the right, connected to the second circle by a diagonal line segment that slopes upwards. Additionally, there are several long, thin, white curved lines that sweep across the upper portion of the slide, creating a sense of motion or flow.

Questions



Deque Slide Template Begins

Make this text bigger



Chapter slide 1

Make this text bigger

Example title that extends to one line below the first line

- Example text
- More samples

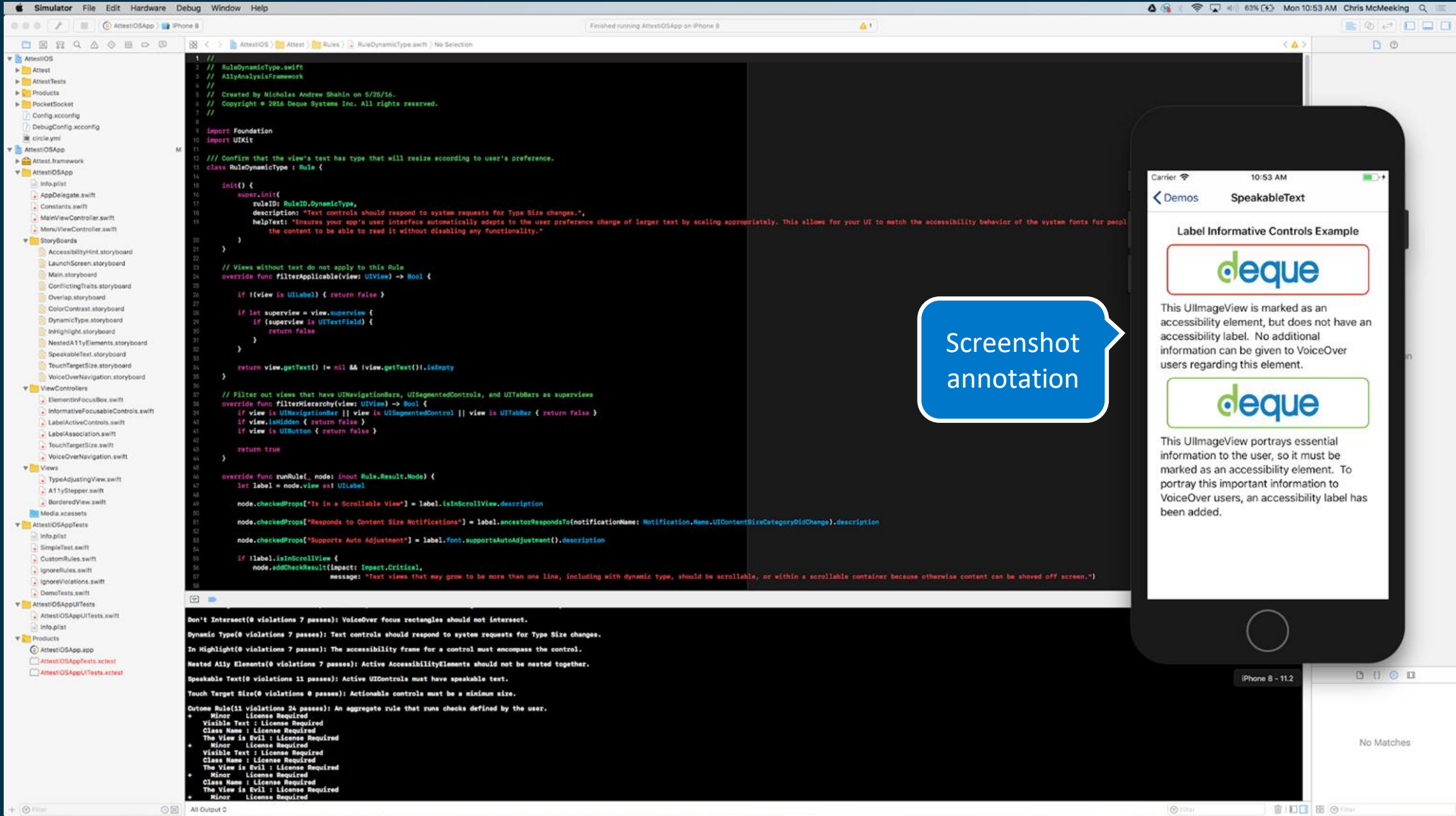
Example title

- Example text
- More samples

Example title

- Example text with SmartArt in branded colors





Example text

Header				
Cell 1				

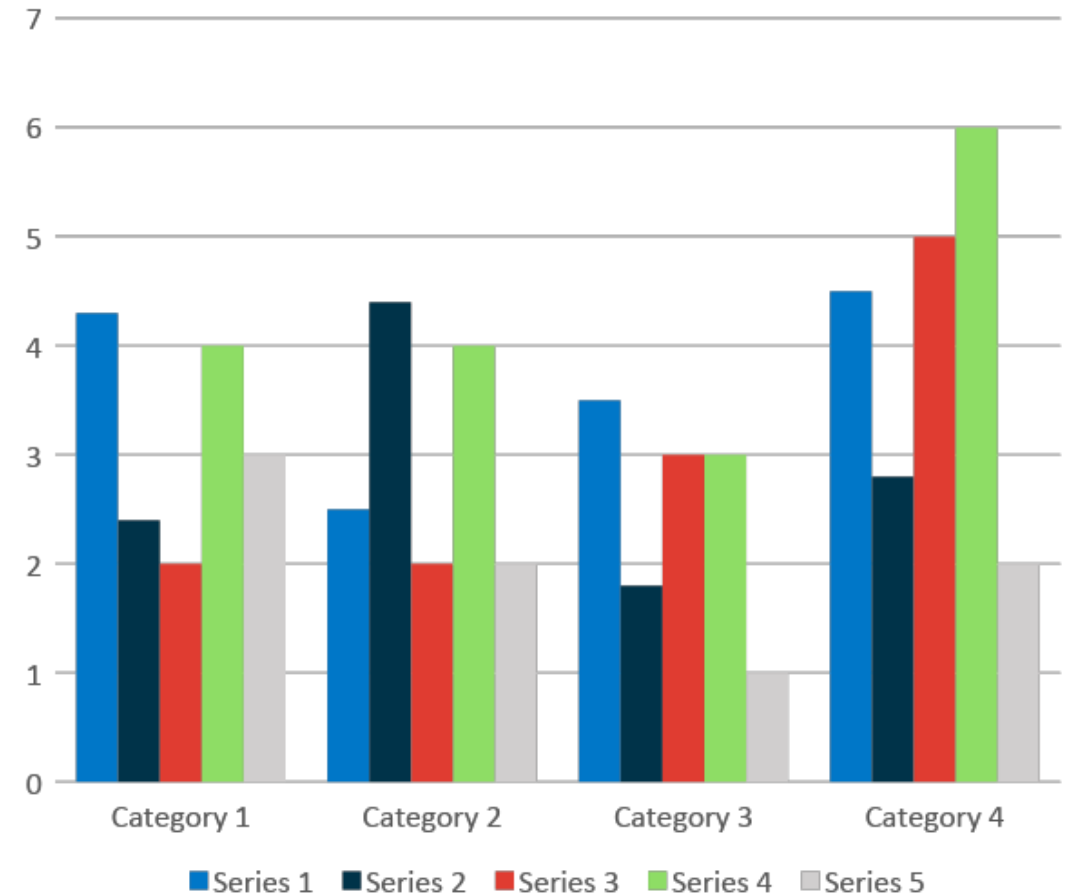
- Example text next to a table in branded colors

An abstract graphic in the top left corner of the slide. It features three white circles of equal size. Two circles are positioned horizontally next to each other, with a thin white line connecting them. A third circle is located further to the right, connected to the other two by a series of thin white lines that curve upwards and then downwards, creating a wave-like pattern. The background is a solid dark gray.

Chapter slide 2

This slide includes a graph

- And some text



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[dequesystemsinc](https://www.youtube.com/dequesystemsinc)



