ACCESSIBILITY

STANDARDS, TECHNIQUES & METHODOLOGIES

Comprehensive Research for Foleon / AEM Environments

Version 1.0 | March 31, 2026

Scope: All applicable accessibility frameworks, standards, laws, methodologies, and testing techniques for Foleon and Adobe Experience Manager

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1. International Standards & Guidelines

1.1 WCAG 2.2 — Web Content Accessibility Guidelines (Current Standard)

WCAG 2.2 is the **current W3C Recommendation** (published October 5, 2023) and the definitive global benchmark for web accessibility. It is organized under four principles known as **POUR**:

- **Perceivable** — Information and UI components must be presentable in ways all users can perceive.
- **Operable** — UI components and navigation must be operable by all users.
- **Understandable** — Information and operation of the UI must be understandable.
- **Robust** — Content must be robust enough to be interpreted reliably by a wide variety of user agents, including assistive technologies.

Conformance Levels

Level	Description	Legal Relevance
A	Minimum baseline accessibility	Basic legal floor
AA	Recommended target for legal compliance (ADA, EAA, Section 508)	Industry standard for compliance
AAA	Enhanced accessibility; not fully achievable for all content types	Aspirational; recommended for government/healthcare

Nine New Success Criteria in WCAG 2.2 (over WCAG 2.1)

Criterion	Level	Summary
2.4.11 Focus Not Obscured (Minimum)	AA	Focused element must not be fully hidden by author-created content
2.4.12 Focus Not Obscured (Enhanced)	AAA	No part of the focused element may be hidden
2.4.13 Focus Appearance	AAA	Focus indicators must meet minimum area and contrast requirements
2.5.7 Dragging Movements	AA	Functions using dragging must have single-pointer alternatives
2.5.8 Target Size (Minimum)	AA	Interactive targets must be at least 24×24 CSS pixels (with exceptions)
3.2.6 Consistent Help	A	Help mechanisms must appear in the same relative order across pages
3.3.7 Redundant Entry	A	Previously entered info must be auto-populated or selectable
3.3.8 Accessible Authentication (Min)	AA	No cognitive function test without alternatives

3.3.9 Accessible Authentication (Enh)	AAA	No cognitive function test at all; all must have alternatives

> **Note**
> WCAG 2.2 removed Success Criterion 4.1.1 Parsing (obsolete due to modern browser behavior).

Relevance to Foleon/AEM: Both platforms reference WCAG as their core accessibility framework. Foleon is aligning to WCAG 2.2 Level AA. AEM Cloud Service documentation still primarily references WCAG 2.1 but is compatible with 2.2 requirements.

1.2 WCAG 2.1 — Web Content Accessibility Guidelines (Prior Version)

Published June 2018. Still the version explicitly referenced by many legal frameworks, including EN 301 549 and the European Accessibility Act (EAA). WCAG 2.1 added 17 success criteria over WCAG 2.0, focusing on mobile accessibility, low vision, and cognitive/learning disabilities. Content conforming to WCAG 2.2 automatically conforms to 2.1 and 2.0.

Relevance to Foleon/AEM: Foleon achieved WCAG 2.1 AA certification in March 2023 (audited by Cardan Technobility). AEM's official documentation and ACR reports reference WCAG 2.1. The EAA's harmonized standard (EN 301 549) currently references WCAG 2.1 AA.

1.3 WCAG 3.0 — W3C Accessibility Guidelines (In Development)

WCAG 3.0 (note the name change from "Web Content" to "W3C" Accessibility Guidelines) is a **Working Draft** being developed by the AG Working Group. The latest working draft was published September 4, 2025. It is **not a finalized standard** and should **not** be used for compliance purposes yet.

Key Changes from WCAG 2.x

Aspect	WCAG 2.x	WCAG 3.0 (Draft)
Scope	Web content	Web, apps, tools, publishing, VR/XR, emerging tech
Structure	Success Criteria	Guidelines → Requirements → Assertions
Conformance	Pass/Fail (A/AA/AAA)	Graded scoring (Bronze/Silver/Gold)
Testing	Primarily technical	Technical + user testing + process/organizational

Cognitive	Limited coverage	Significantly expanded (plain language, figurative language, date/time)

Timeline Estimates

- Late 2025–2026: Continued working draft iterations
- Q4 2027: Anticipated Candidate Recommendation
- 2029: Targeted final W3C Recommendation
- WCAG 2.x will NOT be deprecated for several years after WCAG 3.0 is finalized

> **Relevance to Foleon/AEM**
> No immediate compliance impact, but organizations should monitor developments and begin piloting WCAG 3.0 concepts (user testing, cognitive accessibility) alongside existing WCAG 2.2 compliance work.

1.4 WAI-ARIA — Accessible Rich Internet Applications

WAI-ARIA is a W3C specification that defines how to increase the accessibility of dynamic web content and custom UI components. ARIA provides:

- **Roles** — Define what an element is (e.g., role="navigation", role="dialog", role="tabpanel")
- **States** — Describe the current condition (e.g., aria-expanded="true", aria-checked="false")
- **Properties** — Provide additional semantics (e.g., aria-label, aria-describedby, aria-required)

> **The First Rule of ARIA**
> Use native semantic HTML elements wherever possible. ARIA should only augment where native HTML is insufficient. Misuse of ARIA can make accessibility worse.

Relevance to Foleon/AEM: Foleon Docs are built on HTML5/CSS with ARIA attributes for interactive components. AEM's Rich Text Editor and Core Components use ARIA roles and properties.

1.5 ATAG 2.0 — Authoring Tool Accessibility Guidelines

ATAG covers two dimensions:

- **Part A:** Making the authoring tool interface itself accessible to authors with disabilities.
- **Part B:** Ensuring the authoring tool helps produce accessible content (prompting for alt text, enforcing heading hierarchy, etc.).

Relevance to Foleon/AEM: The Foleon editor and AEM's authoring environment both fall under ATAG's scope. Foleon provides accessibility checks before publishing and offers alt text fields, language settings, and heading hierarchy tools.

1.6 UAAG 2.0 — User Agent Accessibility Guidelines

UAAG addresses the accessibility of browsers, media players, and other applications that render web content. While UAAG targets browser vendors, it is relevant for understanding how end users will consume Foleon Docs and AEM-published content through various user agents and assistive technologies.

2. Legal & Regulatory Frameworks

2.1 European Accessibility Act (EAA) — Directive 2019/882

The EAA **became law on June 28, 2025** across all EU member states. It is the most significant recent development in accessibility regulation.

Key Facts

- Applies to **both public and private sector** organizations
- Covers e-commerce, banking, transport, publishing, and digital services
- References **EN 301 549** as the presumptive standard of conformity
- Applies to **non-EU businesses** serving EU customers
- Micro-enterprises (< 10 employees, < €2M turnover) are exempt
- Penalties: fines, enforcement notices, market access restrictions, and corrective orders
- Foleon Docs are classified as **digital content** under the EAA

> **Relevance to Foleon/AEM**
> Foleon explicitly acknowledges EAA applicability and is aligning to WCAG 2.2 AA. Organizations using Foleon or AEM to produce content for EU audiences must ensure compliance.

2.2 EN 301 549 — European ICT Accessibility Standard

EN 301 549 is the harmonized European standard for ICT accessibility, mandated for public procurement in the EU. It currently incorporates **WCAG 2.1 AA** for web content, with the next version expected to adopt WCAG 2.2. EN 301 549 goes beyond WCAG by also covering:

- Hardware accessibility requirements
- Software on closed systems
- Accessible documentation and support services
- Biometric-based access
- Two-way voice communication

Relevance to Foleon/AEM: AEM publishes Accessibility Conformance Reports (ACRs) mapped to EN 301 549. Organizations subject to EU procurement rules must demonstrate conformance.

2.3 Section 508 — US Rehabilitation Act

Section 508 requires US federal agencies and their contractors to make electronic and information technology accessible. The 2017 "Refresh" incorporated **WCAG 2.0 AA** by reference.

- Applies to federal agencies, contractors, and recipients of federal funding
- Uses the **Voluntary Product Accessibility Template (VPAT)** for conformance reporting
- Courts increasingly cite WCAG 2.2 in ADA-related lawsuits

Relevance to Foleon/AEM: Foleon publishes a VPAT (Version 2.5). Adobe publishes ACR reports for AEM Core Components. Organizations selling to US federal government must provide VPATs.

2.4 Americans with Disabilities Act (ADA)

The ADA does not explicitly reference WCAG, but courts and the Department of Justice increasingly use WCAG guidelines as the benchmark for digital accessibility compliance under Title II (public entities) and Title III (public accommodations). The DOJ's Title II rule (April 2024) formally adopted WCAG 2.1 AA.

2.5 Additional Regional Laws

Law / Regulation	Region	Standard Referenced	Scope
Web Accessibility Directive	EU	WCAG 2.1 AA (EN 301 549)	Public sector websites and mobile apps
AODA	Ontario, Canada	WCAG 2.0 AA	Public and private sector
Equality Act 2010	UK	Reasonable adjustments; references WCAG	Public and private sector
PSBAR 2018	UK	WCAG 2.1 AA	Public sector websites and apps
Israeli Standard 5568	Israel	Based on WCAG 2.0 with local mods	Internet websites
Norwegian ICT Regulations	Norway	WCAG 2.0 A/AA	Public and private bodies

3. Methodologies & Frameworks

3.1 The A11y Project

The A11y Project (a11yproject.com) is an open-source, community-driven effort to make digital accessibility easier. “a11y” is a numeronym for “accessibility” (a + 11 middle letters + y). Key resources include WCAG compliance checklists, getting started guides, and myth-busting content.

3.2 Inclusive Design Methodology

Inclusive design extends beyond disability-focused accessibility to consider the full range of human diversity (permanent, temporary, and situational disabilities). Key frameworks include:

- **Microsoft Inclusive Design Toolkit** — Persona spectrum approach (permanent → temporary → situational)
- **Design for All (EU approach)** — Emphasized by the EAA; products usable by everyone without specialized design
- **Universal Design** — Seven principles for environments and products usable by all people

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3.3 Accessibility Maturity Models

Organizations can assess and improve their accessibility posture using maturity models:

- **W3C Accessibility Maturity Model** — Covers governance, culture, training, technology, and processes
- **Business Disability Forum Maturity Model** — UK-focused organizational assessment
- **WCAG 3.0 Assertions (Draft)** — Includes “assertions” about organizational processes, embedding accessibility at cultural and process levels

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3.4 Shift-Left Accessibility

The practice of integrating accessibility testing earlier in the software development lifecycle (SDLC):

1. **Design Phase** — Color contrast checks, heading hierarchy planning, inclusive personas
2. **Development Phase** — Linting rules (eslint-plugin-jsx-a11y), semantic HTML enforcement, ARIA reviews

3. **Testing Phase** — Automated scans in CI/CD pipelines, manual screen reader testing
4. **Pre-Publication** — Foleon's built-in accessibility checker; AEM's Sites Optimizer weekly audits
5. **Post-Publication** — Ongoing monitoring, user feedback, periodic manual audits

4. Testing Techniques & Tools

4.1 The Testing Pyramid for Accessibility

Automated tools typically catch **30–40% of accessibility issues**. A comprehensive approach requires layering:

Layer	Coverage	Tools / Methods
Automated Scanning	~30–40% of issues	axe-core, WAVE, Lighthouse, Pa11y, IBM Equal Access
Semi-Automated / Guided	+20–30% additional	Accessibility Insights (Microsoft), axe Auditor, checklist walkthroughs
Manual Expert Testing	+20–30% additional	Keyboard navigation, screen reader testing, cognitive walkthroughs
User Testing	Remaining ~10%	Testing with people with disabilities using their own assistive tech

4.2 Automated Testing Tools

Tool	Type	Key Strengths	WCAG
axe-core / axe DevTools (Deque)	Extension, CLI, CI	Industry-standard; zero false positives; ~57% detection	2.1/2.2
WAVE (WebAIM)	Extension, online, API	Visual in-context feedback; contrast analysis	2.1/2.2
Google Lighthouse	Chrome DevTools	Uses axe-core; accessibility score; performance integration	2.1
Accessibility Insights (Microsoft)	Extension, Windows app	Guided manual + automated; FastPass and Assessment	2.1/2.2
Pa11y	CLI, CI integration	Command-line for CI/CD pipelines	2.1
IBM Equal Access	Extension	Rule-based checking with IBM rules	2.1
Siteimprove	SaaS platform	Enterprise continuous monitoring; EAA checklist	2.2
AEM Sites Optimizer	AEM-native	Weekly audits; AI-generated fix recommendations	2.1/2.2

4.3 Manual Testing Methods

Keyboard Navigation Testing

- Tab through all interactive elements; verify visible focus indicators
- Ensure no keyboard traps exist
- Test Enter/Space activation of buttons and links
- Test Escape to close modals and overlays
- Verify skip-to-content links function correctly
- Test arrow key navigation in menus, tabs, and custom widgets

Screen Reader Testing

Screen Reader	Platform	Browser Pairing
NVDA (free)	Windows	Firefox (primary), Chrome
JAWS	Windows	Chrome, Edge
VoiceOver	macOS / iOS	Safari
TalkBack	Android	Chrome
Narrator	Windows	Edge

Color & Contrast Testing

- WebAIM Contrast Checker (web tool)
- Colour Contrast Analyser (CCA) — desktop application
- Chrome DevTools built-in contrast ratio checker
- Stark (design tool plugin for Figma/Sketch)

Cognitive Accessibility Review

- Plain language assessment (reading level, jargon, figurative language)
- Consistent navigation and help mechanism placement
- Error prevention and clear error messages
- Redundant entry elimination
- Authentication alternatives

4.4 CI/CD Integration

Recommended pipeline integration patterns:

- **Pre-commit:** eslint-plugin-jsx-a11y for React/JSX projects
- **Build/PR:** axe-core with Playwright or Cypress (automated regression)

- **Staging:** Full-page scans with Pa11y CI or axe DevTools
- **Production:** Continuous monitoring with Siteimprove, AEM Sites Optimizer, or WAVE API
- **Scheduled:** Periodic manual audits with assistive technology (quarterly recommended)

5. Platform-Specific Analysis

5.1 Foleon — Accessibility Capabilities & Limitations

Current Status: Aligning to WCAG 2.2 Level AA. Audited by Deque Systems (May 2025). Publishes VPAT v2.5.

Supported Accessibility Features

- HTML5/CSS semantic foundation with ARIA attributes
- Heading hierarchy (H1–H4 via Brand Kit)
- Alt text for images (via media library)
- Language tag settings for screen reader interpretation
- Accessibility options toggle in Doc settings (pause motion, reduce animations)
- Skip to main content link
- Keyboard-navigable interactive elements
- Pre-publish accessibility checker
- Color contrast guidance (via external tools like WebAIM)
- Top navigation bar with centered logo (accessible pattern)

Known Limitations & Risks

Feature	Status	Notes
Content gates (lead gen)	❌ Will not pass	Keyboard focus only after interacting with all other links behind gate
Scroll button	❌ Will not pass	Cannot be controlled with keyboard
Foleon branding	❌ Will not pass	Cannot be targeted with keyboard focus; disable before publishing
Hotspots	❌ Will not pass	Not keyboard accessible; not optimized for screen readers
Background videos	⚠️ Grey area	Can be paused with accessibility toggle, but not formally audited
Internal navigation	⚠️ Grey area	Accessible but may not show in expected order
GIF backgrounds	⚠️ Grey area	GIFs as backgrounds don’t pause; GIFs as image elements do
Nav bar items	⚠️ Grey area	Limit number of pages/icons to reduce tab-through burden
Search feature	⚠️ Grey area	Optimized for screen readers but not formally reviewed
Block/Anchor linking	⚠️ Grey area	Focus follows reader but not formally reviewed

Text spacing (1.4.12)	❌ Known issue	Cannot modify line height or spacing of text
Text resize (1.4.4)	❌ Known issue	Browser-changed font text may not change on screen
Form labels (3.3.2)	⚠️ Known issue	Some forms difficult to navigate using screen reader
Focus indicators	⚠️ Known issue	Contrast on buttons can be difficult to see with keyboard focus

5.2 Adobe Experience Manager (AEM) — Accessibility Capabilities

Current Status: AEM Cloud Service references WCAG 2.1 and provides varying levels of support. Publishes ACRs per EN 301 549 / VPAT.

AEM Accessibility Features

- Rich Text Editor (RTE) with accessibility features (headings, lists, tables, link text)
- Alt text fields for images and media
- Page title configuration
- Language settings per page/site
- Keyboard shortcut support throughout the authoring interface
- Screen reader optimized asset management (DAM)
- Core Components with ARIA roles and semantic HTML
- Accessible adaptive forms with assistive technology support
- Sites Optimizer weekly accessibility audits (WCAG A/AA)
- AI-generated remediation recommendations (Sites Optimizer)

AEM Known Limitations (per ACR)

- Some decorative icons (chevrons in Breadcrumb/Accordion) not properly identified as decorative
- Linked logo image in PDF viewer lacks text alternative
- Product images in Related Products/Product Carousel may lack alt attributes
- Some tables not correctly structured for assistive technology
- Some heading information not properly conveyed
- A dialog may lack appropriate structure
- A navigation landmark may not be labeled to distinguish from others
- Error/constraint text may not be associated with relevant inputs

- Bypass mechanism for repeated blocks requires assistive technology

6. Standards Relationship Map

Understanding how these standards interrelate is critical for compliance planning:

Standard	References	Legal Context
WCAG 2.2 (W3C, Oct 2023)	Global technical standard	Referenced by all major laws
Section 508 (US Federal)	Incorporates WCAG 2.0 AA	US federal agencies & contractors
EN 301 549 (EU ICT)	Incorporates WCAG 2.1 AA	EU public procurement
ADA (US Civil Rights)	Courts reference WCAG 2.1 AA	US public entities & accommodations
EAA (EU Private Sector)	References EN 301 549	EU private + public; active June 28, 2025

Practical Guidance

Targeting WCAG 2.2 Level AA satisfies the technical requirements of Section 508, EN 301 549, the EAA, and the ADA simultaneously.

7. Emerging & Supplementary Frameworks

7.1 COGA — Cognitive and Learning Disabilities Accessibility

The W3C's Cognitive and Learning Disabilities Accessibility Task Force produces guidance beyond WCAG's formal success criteria, including advisory techniques for clear language, consistent navigation, error prevention, familiar design patterns, and reduced cognitive load.

7.2 APCA — Advanced Perceptual Contrast Algorithm

APCA is a next-generation contrast algorithm being considered for WCAG 3.0 to replace the current luminance contrast ratio. It provides more perceptually accurate contrast measurements, particularly for lighter text on dark backgrounds.

7.3 ACT Rules — Accessibility Conformance Testing

ACT Rules are a W3C standard for writing accessibility test rules that produce consistent results across different testing tools. Major tools (axe-core, Alfa, QualWeb) implement ACT rules.

7.4 PDF/UA — Universal Accessibility for PDFs

ISO 14289-1 (PDF/UA) defines requirements for accessible PDF documents. Relevant when Foleon Docs or AEM pages export to or link to PDF content.

7.5 VPAT / ACR — Conformance Reporting

The Voluntary Product Accessibility Template (VPAT) is the standardized format for documenting accessibility conformance. The resulting document is called an Accessibility Conformance Report (ACR). Both Foleon and Adobe publish VPATs/ACRs for their products.

8. Summary Matrix: Standards Applicability

Quick reference for which standards apply to Foleon and AEM environments:

Standard	Type	Version	Foleon	AEM	Target
WCAG 2.2	Technical Std	Oct 2023	✅ Yes	✅ Yes	AA
WCAG 2.1	Technical Std	Jun 2018	✅ Yes	✅ Yes	AA
WCAG 3.0	Draft Std	Sep 2025 WD	➡ SOON Monitor	➡ SOON Monitor	Bronze
WAI-ARIA	Technical Spec	1.2	✅ Yes	✅ Yes	N/A
ATAG 2.0	Technical Std	Sep 2015	✅ Editor	✅ Authoring	N/A
EN 301 549	EU Standard	V3.2.1	✅ Yes	✅ Yes	2.1 AA
Section 508	US Law	2017 Refresh	✅ Yes	✅ Yes	2.0 AA
EAA	EU Directive	Jun 2025	✅ Yes	✅ Yes	EN 301 549
ADA	US Law	Title II: 2024	✅ Yes	✅ Yes	2.1 AA
PDF/UA	ISO Standard	ISO 14289-1	If PDF exports	If PDF exports	N/A

9. Recommended Approach

Based on this research, the recommended accessibility strategy for Foleon/AEM content is:

1. **Adopt WCAG 2.2 Level AA** as the primary technical baseline — this satisfies all current legal requirements globally.
2. **Implement WAI-ARIA correctly** — use semantic HTML first, then augment with ARIA where needed.
3. **Layer testing approaches** — combine automated scanning (axe-core, WAVE), manual keyboard/screen reader testing, and periodic user testing with people with disabilities.
4. **Integrate accessibility into CI/CD** — shift-left with linting, pre-commit hooks, and automated pipeline scans.
5. **Monitor WCAG 3.0 development** — begin piloting cognitive accessibility improvements and user testing practices.
6. **Document conformance** — maintain VPATs/ACRs and publish accessibility statements as required by the EAA.
7. **Account for platform limitations** — understand Foleon's known limitations and AEM's known gaps and document workarounds or avoid problematic patterns.

10. References & Sources

W3C Standards

WCAG 2.2 — W3C Recommendation
WCAG 3.0 Introduction
WAI-ARIA Overview
ATAG Overview
UAAG Overview

Legal & Regulatory

European Accessibility Act (EAA)
EN 301 549 (ETSI)
Section 508

Foleon

Foleon Accessibility Statement
Guide to Accessible Content
Accessibility Checklist (Help Center)

Adobe Experience Manager

AEM & Web Accessibility Guidelines
AEM Core Components ACR

Testing Tools

Deque axe-core
WebAIM WAVE
W3C Evaluation Tools List
The A11y Project

This document serves as the research foundation for building a comprehensive Accessibility Documentation & Checklist for Foleon/AEM environments. Next steps include translating these findings into actionable checklists organized by role (content author, designer, developer, QA tester) and platform-specific implementation guides.