University of Minnesota

Self-Help Guide

UM Analytics: Web Content Accessibility Guide for Content Authors

- **Accessibility Compliance**: In accordance with the Americans with Disabilities Act (ADA) and Section 508 of the Rehabilitation Act, all public institutions—such as the University of Minnesota—are required to ensure that their digital technologies are accessible to individuals with disabilities.
- **Compliance Deadline**: All web-based reports, dashboards, and data visualizations created using UM Analytics must be fully compliant with the Web Content Accessibility Guidelines (WCAG) 2.1 by April 2027.
- **Purpose of this Guide**: This guide is designed to support content authors evaluate their content in UM Analytics for accessibility and resolve issues to ensure full WCAG 2.1 compliance.

Note: this guide will be updated regularly to reflect new developments, including vendor responses and resolutions to identified accessibility barriers.

Evaluate and Resolve Accessibility Issues in UM Analytics

Understand Our Responsibilities in Analytics

Enterprise Data and Analytics (EDA) Responsibilities

To ensure accessibility compliance within the UM Analytics platform, responsibilities are shared between Enterprise Data and Analytics (EDA) and content authors.

EDA is responsible for reviewing and maintaining the accessibility of the UM Analytics framework, which includes:

- Authentication and login pages
- Page headers
- Repeated menus and global templates
- Pop-up dialog boxes
- Authoring framework
- The Catalog

UM Analytics Author Responsibilities

To ensure accessibility compliance within the UM Analytics platform, responsibilities are shared between Enterprise Data and Analytics (EDA) and content authors.

Content authors are responsible for ensuring the accessibility of the content they create within UM Analytics. This includes:

- Content headers (distinct from framework headers)
- Data visualizations (charts, tables, graphs, etc.)
- Text descriptions and summaries
- Color choices and contrast
- Alternative text for images or icons
- Keyboard accessibility for custom interactions
- Help documentation and instructions (use the UM Analytics Help Document Template and UM Analytics Subject Area Guide Template)

Get Ready

Review Digital Accessibility Best Practices and Tools

- Review the **7 Core Skills of Digital Accessibility** on the ODA website or 7 Core Skills of Digital Accessibility recording of the presentation.

- Review the **Data Visualizations and Accessibility slides** or Data Visualizations and Accessibility recording, approximately 28 minutes long starting at 32:42).

- Add the **WAVE extension** to your browser. WAVE is an evaluation tool that identifies accessibility issues on a web page.
    - **Data Security:** use the WAVE Browser Extension but do not use the website submission via wave.webaim.org. The former does not transmit sensitive page content to external servers while the latter does.
- Take the self-paced **Web Developer Manual Accessibility Testing course** (4–6 hours).

Evaluate for Accessibility

Understand Accessibility Barriers

Enterprise Data and Analytics (EDA) has initiated an accessibility evaluation of the UM Analytics platform. As part of this ongoing assessment, any accessibility barriers identified are being documented in Accessibility Barriers Found in the UM Analytics Framework.

Use the 3Rs: Remove, Revise, Right First

Use the 3Rs Framework to guide your accessibility effort.

Review Using Automated Evaluation

Use the WAVE accessibility evaluation tool to scan your web page.

- The evaluation results will appear in the left panel of the WAVE interface.

- Focus on addressing issues related to the content you created.

Review Using Manual Evaluation

Automated tools like WAVE are helpful, but they cannot detect all accessibility issues. Manual evaluation is essential to ensure full compliance and usability for all users. Below is a checklist to guide manual accessibility testing for UM Analytics content.

Keyboard Navigation

- **Logical Tab Order**: Tab sequence follows a meaningful and predictable path.
- **Keyboard Accessible**: All interactive elements (links, dropdowns, menu items, buttons) are accessible via keys: Tab, Shift + Tab, Enter, Spacebar, Arrow keys, Escape
- **Visible Focus**: Each interactive element shows a visible focus indicator when navigated via keyboard.

Page Structure

- **Header Hierarchy**: Headers are used in a logical order (e.g., H1 → H2 → H3) without skipping levels.
- **Labels**: All page elements have clear labels associated with them that describe their function or content.

Links

- **Descriptive Links**: Text for a link is concise, meaningful, and understandable even out of context.
- **New Tab Notification**: Users are informed when a link opens in a new tab.

Lists and Tables

- **Lists**: Used to organize key concepts, sequences, or related items.
- **Tables**:
    - Use clear descriptive captions and row and column headers.
    - Use to show data only, not for page layout.

Visual Design

- **Color Contrast**: Text and graphics have sufficient contrast against the background.

Charts and Data Visualizations

- **Charts**: Bar graphs, pie charts, and other visuals use high-contrast colors, shapes, and patterns to distinguish elements.
- **Use of Shapes and Patterns**: Meaning is conveyed through more than just color.
- **Labeling**:
  - Use direct labels, data point callouts, and legends to explain significant parts of data.
  - Titles, axis labels, and key elements are provided.
  - Provide ALT text or long descriptions for context and insight.
- **Supplemental Formats**: Provide data in alternative formats (e.g., tables or downloadable CSV files).

Images

- **Alternative Text**:
  - Short Description: Describes the image’s main purpose.
  - Long Description: Provides detailed context for complex visuals.

Media

- **Videos**: Include captions and audio descriptions.
- **Audio-only Content**: Provide full transcripts.

Error Feedback

Clear feedback is provided when:

- Invalid input is entered.
- No data is found.
- Required fields are missing.

Resolve Barriers

To ensure a fully inclusive user experience in UM Analytics, all identified accessibility barriers must be addressed. Remediation responsibilities fall into two categories.

- **Remediation within your control**. These are issues that content authors can directly resolve through updates to content, formatting, or site configuration. Take immediate action to fix them directly.
- **Remediation outside your control**. These are issues related to system functionality or vendor-managed components that cannot be resolved by content authors. Report these barriers to help@umn.edu.

Inform Users How to Report Accessibility Barriers

The University **Office for Digital Accessibility** (**ODA**) provides accessibility statement templates for use on published University reports and dashboards: Accessibility Statements for University Published Reports and Dashboards document.

The standards for applying these statements to UM Analytics content are:

- **Primary Statement** is placed in a separate section of the Report or Dashboard **Footer** if data or visualizations is displayed.
- **Secondary Statement** is placed in the **Help Resources** tab or in a comparable location.

Find Resources

Review Self-Help and Guidance for UM Analytics Accessibility

- Understand Why Accessibility Matters from the Office of Information Technology (OIT), Office for Digital Accessibility (ODA), and the Accessible U Committee
- 7 Core Skills of Digital Accessibility (slides or recording) from the ODA
- Visualizations and Accessibility from ODA (slides or recording, 28 minutes long starting at 32:42 in the video)
- Data Visualizations, Charts, and Graphs from Harvard University

- Past accessibility presentation recordings by the Accessibility Ambassadors
- Designing Pixel-Perfect Reports in Oracle Analytics Cloud from Oracle