Accessible Graphics

Introduction

This document is intended to provide rules and guidelines for use of accessible graphics and text on AMI-tv. These rules are designed to maximize accessibility for a blind and partially sighted audience while not limiting creativity.

This document is based off the research and standards set by Web Content Accessibility Guidelines (WCAG 2.0). Relevant sections have been adapted to accommodate the differences in nature of web content compared to television content.

Accessible Text on screen

Size

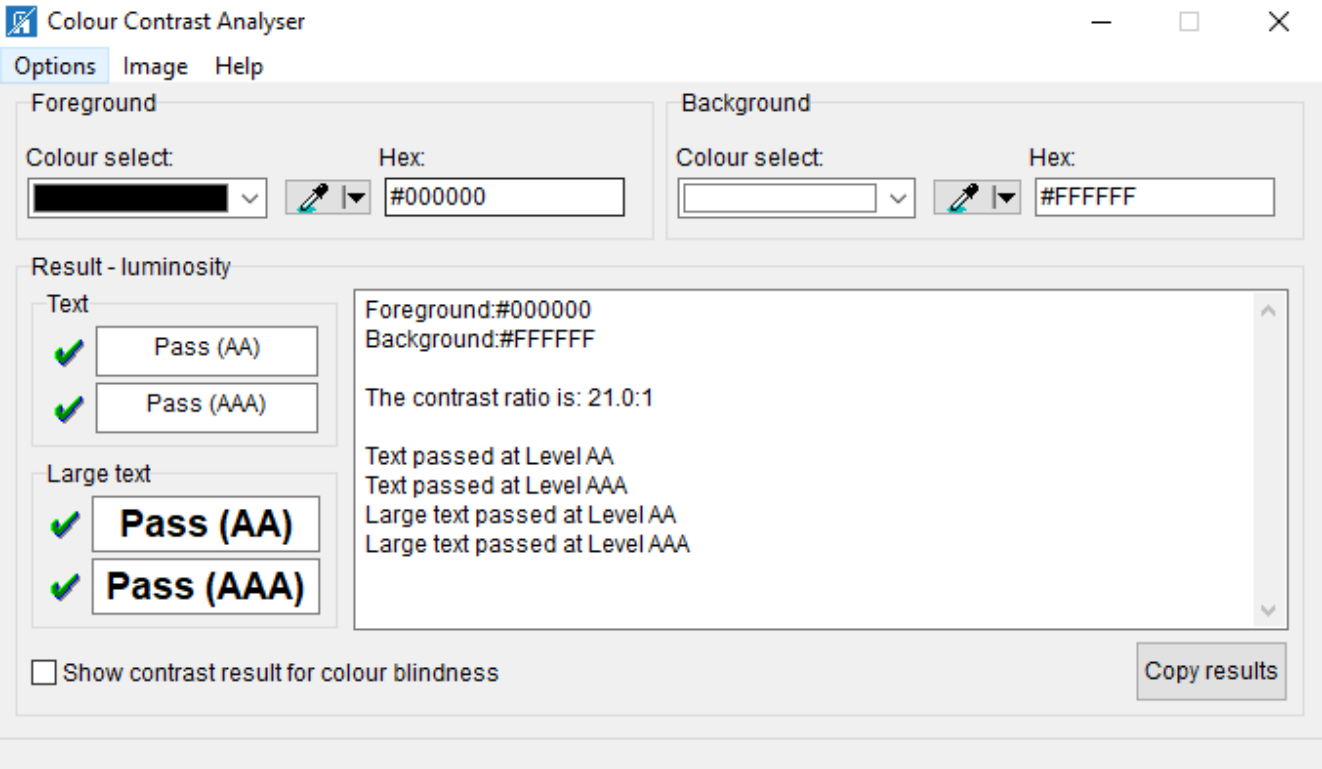
Text presented on screen should adhere to a minimum pixel size of 48px.

Contrast
On-screen text requires a minimum contrast ratio of 4.5:1 (based on relative luminance) with the background colour behind it.

Low contrast examples:

High contrast examples:

Use the *Colour Contrast Analyser* app to check the contrast level between the colour of the text and the colour of the background and ensure it meets the minimum standard.



Colour Contrast Analyser app:
https://developer.paciellogroup.com/resources/contrastanalyser/

Duration

The minimum length of time that text and graphics should remain on screen without obstruction is equal to the time it takes an average person to read aloud the text or describe the content.

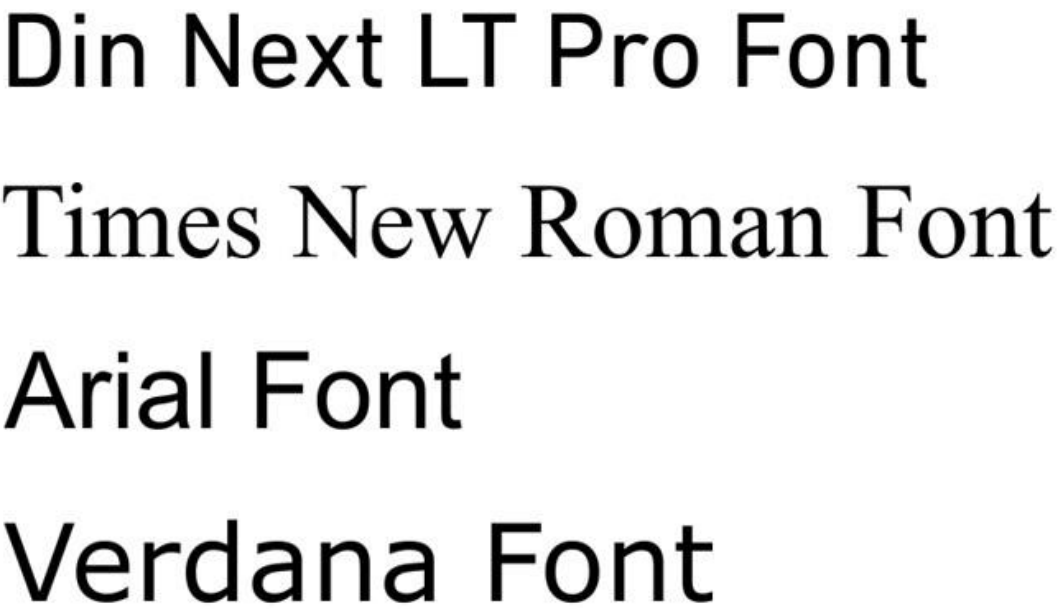
Font

Text should be presented with fonts that use recognizable letterforms. Decorative or display fonts that contain extraordinarily thin strokes, unusual characteristics or proportions that reduce the familiarity of letters can adversely affect legibility and should be avoided. It is also important to note the kerning, tracking and leading of the presented text. If the kerning, tracking

or leading is too tight then letters can blend together and be difficult to distinguish. Alternatively, if they are too loose, the letters or words can appear to be floating which can negatively affect readability.

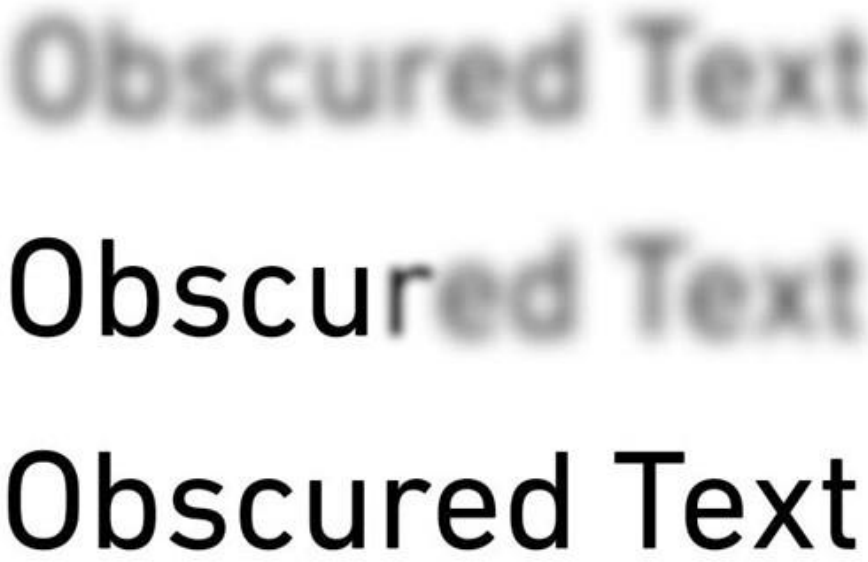
Inaccessible font examples:

Accessible font examples:



Obscurations and Transitions

Graphic elements or transitions that obscure the legibility of text or graphics should resolve away from the text or graphics being obscured. The Duration of the text should be measured from the time the text is no longer obscured.



Graphics and text over a patterned background or moving footage

Text and graphics on top of busy backgrounds or moving footage can decrease legibility. Increases to size, contrast and duration of text or adding a colour treatment to the background can improve legibility. In some cases picking a less busy background may be the best option.

Inaccessible title on busy background example:

Accessible title on colour treated background:

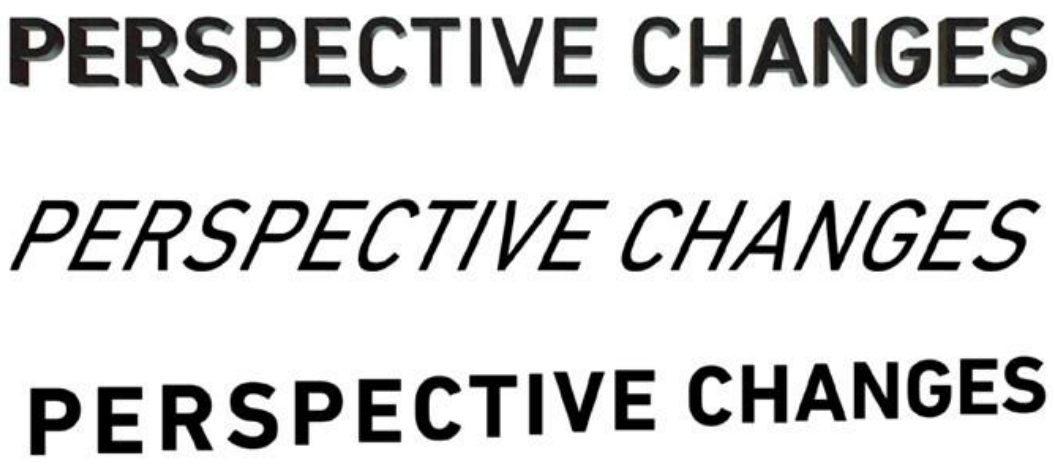
Accessible title on less busy background:

Perspective Changes

Text and graphics that have had their natural perspectives altered can decrease legibility. This includes changes to rotation and skew, as well as 3D extrusions. When using these techniques, extra care and consideration is required to ensure accessibility. Increases to size, contrast and duration can improve legibility in these cases.

Inaccessible perspective change examples:

Accessible perspective change examples:



Stroke/Drop Shadows

A stroke/drop shadow behind letters can be a helpful tool to add contrast between text and the background. When using Strokes/Drop Shadows, ensure the text colour and the effect colour meet the minimum contrast ratio and that the effect is not hindering the legibility of the text in anyway.

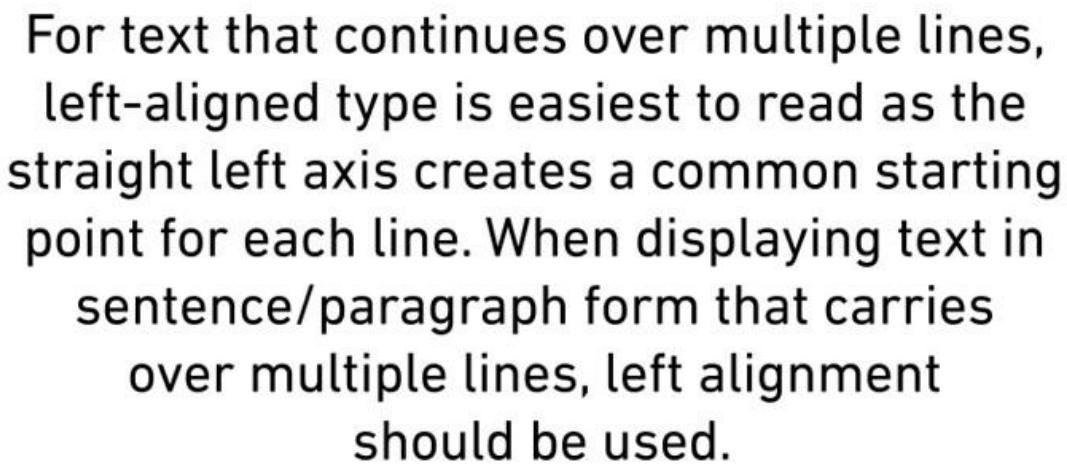
Inaccessible Stroke / Drop Shadow examples:

Accessible Stroke / Drop Shadow examples:

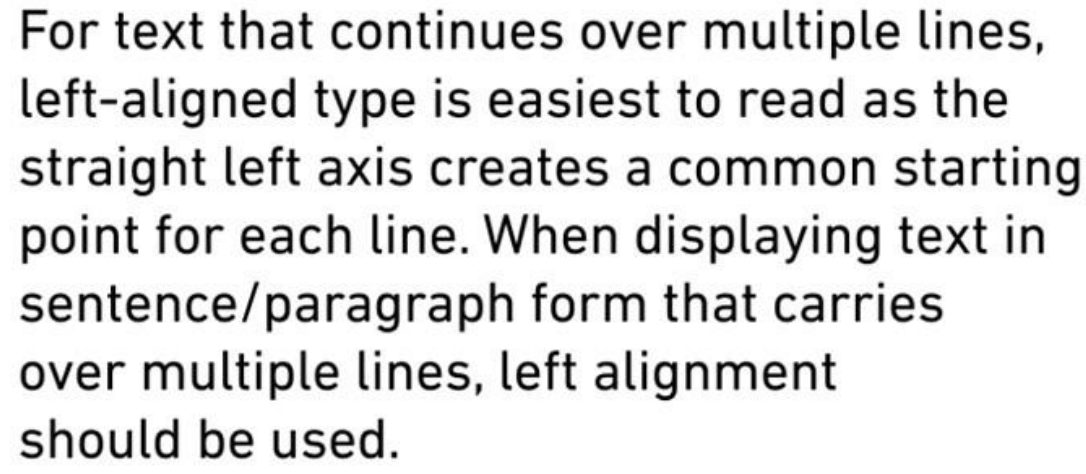
Moving Text
Text that has motion throughout the Duration period can decrease readability as it may be harder for the viewer to focus on. Any movement of text, such as crawling or scaling, during the Duration period should be gentle and slow. When using these techniques, extra care and consideration is required to ensure accessibility. Increases to size, contrast and duration can improve legibility in these cases.

Alignment
For text that continues over multiple lines, left-aligned type is easiest to read as the straight left axis creates a common starting point for each line. When displaying text in sentence/paragraph form that carries over multiple lines, left alignment should be used.

Inaccessible alignment example:



Accessible alignment example:



Font Styles for Lengthy Text

When displaying text in sentence/paragraph form that carries over multiple lines, all capitals should be avoided. While this technique can aid in highlighting key points in shorter segments or headings, it will decrease readability in lengthy segments.

High Luminance or Saturated Red Flashes

While this technique is not directly related to accessibility for a low-vision audience, it is an important note for people who may be prone to seizures from photosensitivity. Flashes or strobe lights that take up more than 25% of the screen and have a high luminance difference or saturated red flashing should be kept to a rate no greater than 3 flashes per second, and not for a duration exceeding 5 seconds.