



# Digital accessibility quick scan report

## PostmarketOS

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## Introduction

The Accessibility Foundation is the center of expertise in the field of digital accessibility and based in the Netherlands. We research, test and develop digital accessibility solutions. We provide support, recommendations and audit services for websites, media, technology and apps. Through our work in W3C and the EU we are actively helping to set the standards that shape accessibility. We cooperate with (inter) national stakeholders and leading European partners. We participate in relevant working groups at national and international level. The Accessibility Foundation was founded in 2001 by Bartiméus, a large Dutch health and education organization for people with a visual disability. In Europe, Accessibility is an important provider of expertise in the digital accessibility domain and active in many European and local projects.

Read more about our foundation on our website: <https://www.accessibility.nl/english>.

### Suggestions on how to use this quick scan evaluation

This quick scan evaluation describes how much of your widget is compliant to the requirements of the Web Content Accessibility Guidelines version 2.1 (WCAG). The result research also contains common failures. These can be used to recognize reoccurring problems. Websites that comply with these guidelines are accessible to people with disabilities as well as older individuals with changing abilities due to aging.

The result research below contains examples of problems that have been found in the evaluation. This is not a complete list of all the problems that were found. When upgrading the website or application based on this report it is important to remember to not only solve the problems given in the report but to also look at other pages. It is possible that despite targeted searches not all problems have been found. These problems might come up in a future evaluation. We would therefore advise that when improving the website the focus should not be limited to the problems described in this report.

### Web Content Accessibility Guidelines

WCAG 2 guidelines are divided over four principles (perceivable, operable, understandable and robust). These make up the core of WCAG 2. Every guideline is then divided into one or more measurable success criteria. Because WCAG 2 is designed independent of any specific technology, all web content, including file formats such as PDF and Microsoft Office Word can be evaluated with WCAG 2.

## Result research

This accessibility quick scan was completed on September 1<sup>st</sup> 2020. The standard for this quick scan audit is WCAG 2.1, level AA (see <https://www.w3.org/TR/WCAG21>).

### 1.1.1 Non-text Content

The logo of PostmarketOS on the Loading screen should have an alternative text (such as 'Logo PostmarketOS'). The logo should also have an alternative text wherever it appears on each of the screens that follow after that (often the Loading screens or the Welcome screen).

The loading screen that comes right after the Logo + 'loading...' only shows a loader animation. This animation should have a text alternative. The loader animation also appears on several screens after installation. It also appears when searching for software (Gnome 2048, for example).

After installation, there is a screen with only the logo of PostmarketOS (in the grass). This image needs an alternative text.

The logos of software that can be installed, such as Gnome, need an alternative text.

### 1.3.1 Info and relationships

In the Software screen you can see which tab is active (explore, installed, updates). This info (which tab is active) also needs to be conveyed programmatically so that assistive technologies can convey this to the user.

### 1.3.3 Sensory characteristics

The welcome screen gives instructions on how to perform basic actions. Instructions shouldn't only rely on sensory characteristics (such as location), because blind users can have trouble finding them. Make sure the location, for instance, is also being referred to in a textual manner. For instance, the instruction 'tap the bottom arrow'; a blind user will only know the arrow by the name the arrow has (probably not 'arrow', but 'go up' or something similar) so that name should be used in the instruction to identify this element. The same goes for 'tap the power symbol on the top right'. The user should be able to identify the 'power symbol' (because for a blind user it's not on the 'top right'). These are just some examples.

### 1.4.1 Use of Color

In the software screen you can see which tab is active (explore, installed, updates). This difference seems to be indicated only by using a color difference. Provide a second cue, f.i. by using underscore, bold, etc.

### 1.4.3 Contrast (minimum)

On the screen 'lockscreen PIN' the contrast of the placeholder text may be too low. A minimum ratio of 4.5:1 is required for text, unless it's large text (at least 18px or 14px + bold; requires a minimum ratio of 3.0:1).

The contrast of the text on the loading bar may be too low (the white percentage on the blue bar).

The blue links on the welcome screen may have a low contrast ratio.

In the software screen you can see which tab is active (explore, installed, updates). The contrast of the texts on the inactive tabs may be too low.

The grey text 'Software is up to date' may have a low contrast ratio.

The white text 'Install' on the blue button (f.i. when downloading Gnome 2048) may have a low contrast ratio.

#### 1.4.11 Non-text Contrast

On the screen 'lockscreen PIN' the contrast of the borders of the input fields may be too low. A minimum ratio of 3:1 is required.

The contrast ratio of the input field against the black background on the first screen after installation (password) is too low.

The contrast ratio of the toggle 'Airplane mode' under 'Settings' → WiFi may be too low.

### 2.2.1 Keyboard

Make sure that all functionalities can be accessed using some form of VoiceOver/Screen reader navigation. This is likely not an issue when best practices have been followed, such as using the correct roles for elements (buttons/links/etc).

The keyboard that appears right after installation needs to be "keyboard accessible", meaning that it can be operated using VoiceOver gestures.

### 3.3.1 Error Identification

Make sure to provide error messages when fields have not been filled in (correctly). An error message tells you what went wrong and where, for instance ‘The field SSH username has not been filled in’.

### **3.3.2 Labels or Instructions**

On the screen ‘lockscreen PIN’ the input fields don’t have labels. Placeholder text does not count as a label, because the text disappears when one starts to type.

The same applies to the screen ‘SSH credentials’ and similar screens where input is required.

After installation a black screen appears where you have to type in your password. There is no visible label.

(Make sure to programmatically connect the labels to the input fields they belong to.)

When ‘Incorrect passphrase’ appears, there’s no instruction telling you that you have to start typing to try again.

### **4.1.2 Name, Role, Value**

Make sure all buttons are coded as a ‘button’ and have a name. For instance the ‘Continue’ buttons, but also the search button and menu button on each screen after installation (in ‘Settings’, ‘software’, etc), as well as the cross to close a window, or the arrows on the page ‘Software’.

The PostmarketOS keyboard that appears right after installation needs to have the correct names, roles, and values.

### **4.1.3 Status Messages**

Make sure to “announce” status messages (important changes on the screen that tell you something about the status), that are not conveyed by a change of the focus. Such changes need to be conveyed programmatically so that assistive technologies can convey this to the user. For instance, when the keyboard appears on the screen, or when the text ‘Incorrect passphrase’ appears, a blind user may not hear that something is changing on the screen, unless you place the focus on the changed element, or use an ARIA-attribute such as aria-live.

On the screen ‘lockscreen PIN’ while typing a text appears fi ‘too short: needs at least 5 digits’. This is a status message.

The percentage on the loading screen (where it starts the installation) is a status

message.

All loader animations are status messages.

### **Evaluation information**

Organisation	PostmarketOS
Evaluation type	Quick scan
Evaluation level	WCAG 2.1, level AA
Evaluation date	September 1 <sup>st</sup> , 2020

### **User Agents**

The following user agents have been used in this evaluation:

### **Scope**

The app PostmarketOS