Fact Sheet Accessibility Android

E-Accessibility Solutions for Everyone

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Orange guidelines:
https://a11y-guidelines.orange.com/fr/

General Navigation

Define large click zones:

Apply the recommendations of the Platform: 48dp width/height +8dp margin around each clickable element.

Adapt the application to the 2 screen orientations:

Do not depend on screen orientation (portrait or landscape), unless the particular orientation is essential for understanding or using the content.

Propose an alternative to gestural actions:

Actions triggered by a gesture or movement of the device must have an alternative.

Use standard components:

Use native components first. If no component responds the need, create a dedicated component based on a standard component, taking care to maintain navigation consistent and accessible.

Provide readable texts:

Serif typefaces, small sized text, as well as italics should be avoided.

Allow configuring time limits:

When the context changes after a certain time limit (ex: overlay which disappears on a video player after several seconds), the user must be allowed to adapt this time limit or offer an alternative.
getRecommendedTimeoutMillis()

Indicate horizontal scrolls:

Give a visual indication to users when there are horizontal "scrolls" (arrows or dots indicating pagination). Also remember to complete the alternative text of these elements.
Label form fields
Link form fields with their labels.
android:labelFor or setLabelFor
android:hint or setHint (for TextView only)

Identify input errors:

If there is an input error, it is important to clearly indicate the error, so that the field in question can be identified without difficulty (visual indication, suggested correction, explicit error message).

Define a title for each screen:

Each screen must have a relevant title that is specific to it,

to be identified correctly in the application (coupled with the back button).

Vocal Navigation

Provide text alternatives:

For images that convey information and any element that requires additional description.
Please note: no alternative for decorative images.
contentDescription

Indicate the status of elements:

Any element whose status is modified while using the application must restore its status through its alternative text (selected element, expanded section, selected tab, etc.).

Reading order:

By default, screen readers (talkback) read items in a logical order. If necessary, it is possible to adjust this order.
setAccessibilityTraversalAfter
setAccessibilityTraversalBefore

Notify the user of all content changes:

If a dynamic content change occurs (list refresh, time counter, etc.), it must be vocalized by Talkabck
announceForAccessibility
setAccessibilityLiveRegion

Manage navigation by headings

For Talkback to recognize headers and offer faster navigation, add an attribute in the XML layout for elements considered as headers.
accessibilityHeading

Leave the control to the user

Any moving, updated, flashing content must be able to be stopped, hidden or paused by the user. He must have the full control over the application (no video that starts automatically, etc.).

Trigger the vocalization

It is possible to launch a vocalization by the screen reader (when it has been activated by the user).
announceForAccessibility

Hide items from accessibility

It is possible to hide elements from Accessibility tools (Talkback or Voiceover for example). ImportantForAccessibility

Know the state of the screen reader

In some cases, it may be interesting to know if the user is using the screen reader (Talkback): isEnabled method of the AccessibilityManager object

Vocalization of lists

Sometimes lists are not vocalized correctly (vocalization of the list in one go). To rectify this problem, the focusable attribute must be set to true for each item in the list.

Switch Access

Allow keyboard navigation

To enable focus navigation, make interactive elements focusable: Attribute focusable to true
The focus order must be specified using the options:
nextFocusDown, nextFocusUp
nextFocusRight, nextFocusLeft
The focus position must always be visible:
Set the state-focused state of interactive elements.

Colors and Contrasts

Check color contrast

- 4.5/1min. for standard size text.
- 3/1 min. for large text (150% or 120% if bold).

Don't rely only on color

Color should not be used as the only visual means of conveying information.

Element Magnification

Allow character enlargement

In order to allow the "large print" option to interact correctly with the application.

Use a dynamic font size: the "sp"

Manage content overflows: min-height, height and wrap_content.

Media

To describe audio and/or video content, some elements may be required.

Subtitles: textual content synchronized with the video, giving access to all of what is expressed in audio (dialogue, noise, music…)
Audio description: added narration to describe all the visual details that are essential to understanding the video (such as actions, characters, decoration...)
Transcription: textual version containing all the content information

Requirements according to the type on content:

Type of content	Subtitles	Audio description	Transcription
Audio	Not mandatory	Not mandatory	Mandatory
Video	Mandatory	Mandatory only if visual information is there	Mandatory if the video contains interactive elements

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Checklist Accessibility

Quick checklist for a pull request

To verify:

- Images and icons have a text alternative
- Screen orientation is supported
- The input fields are labeled
- Texts can be enlarged
- Information is not based only on color
- Contrasts are respected
- Interactive areas are 48dp by 48dp minimum
- There is no light flash (epilepsy)

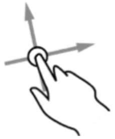
Complete checklist before going into production

Before putting your application into production, it's recommended to check all the criteria indicated on this sheet for each screen. You can also find a more exhaustive list of criteria on the Orange accessibility recommendations site, as well as on the va11ydette: https://la-va11ydette.orange.com/?list=wcag-android&lang=fr

Basic Gestures Talkback

Enable screen reader in:

Settings > Accessibility > Talkback



Move one finger on the screen:

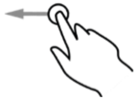
To explore the screen and hear the vocalization of the element that is touched.

Double-click anywhere on the screen

To open or activate the last item that was touched (voiced).

Swipe right using one finger

To move focus to the next item.



Swipe left using one finger

To move the focus to the previous element.

Toolbox

Accessibility Scanner
Application available on the Play Store allowing to test accessibility on your application (contrasts, clickable area size…)

☑ Criteria to check from the design phase