

# macOS Accessibility Features

## Comprehensive Reference Guide

*This guide provides a clear, practical overview of every major accessibility feature available in macOS. It is designed to help users, caregivers, and professionals understand what each feature does, who it benefits, and how to adjust key settings. All features described here are found in **System Settings** → **Accessibility** unless otherwise noted.*

## Vision

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### VoiceOver (Screen Reader)

VoiceOver is a built-in screen reader that provides spoken and Braille output for users who are blind or have low vision. It enables full navigation of macOS using the keyboard, trackpad, or a connected Braille display.

#### Key capabilities include:

- Spoken descriptions of interface elements
- Keyboard and trackpad navigation
- Rotor for quick navigation by headings, links, form controls, and more
- Braille display pairing and customization
- Screen recognition and image descriptions on supported Macs

#### Adjustable settings:

- Voice rate, pitch, and intonation
  - Verbosity levels
  - Sound effects and audio ducking
  - Commanders (keyboard, trackpad, numeric keypad)
  - Braille translation tables and output modes
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### Zoom (Screen Magnifier)

Zoom provides system-wide magnification for users with low vision. It can enlarge the entire screen or only a portion of it.

#### Viewing modes:

- Full-screen: Magnifies the entire display
- Split-screen: Shows magnified content alongside unmagnified content
- Picture-in-Picture: A movable magnified window

#### Adjustable settings:

- Maximum zoom level
- Follow focus behavior
- Temporary zoom using modifier keys
- Smooth vs. pixelated image rendering
- Optional appearance filters (e.g., inverted colors, grayscale)

### Display Adjustments

These settings improve visibility and reduce visual strain.

**Options include:**

- Increase contrast
- Reduce transparency
- Differentiate without color
- Invert colors (Classic or Smart Invert)

**NOTE:** Smart Invert avoids inverting images and videos, making it more usable for everyday tasks.

- Reduce motion
  - Adjust menu bar and sidebar icon size
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**Spoken Content**

Spoken Content provides text-to-speech support for users who benefit from auditory reinforcement.

**Features include:**

- Speak selection
- Speak items under pointer
- Typing feedback
- Customizable voices and speaking rate

**Descriptions**

This setting enables audio descriptions for supported video content.

**Options:**

- Prefer audio descriptions system-wide

## Hearing

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**Audio Enhancements**

These features support users with hearing differences or auditory processing needs.

**Options include:**

- Mono audio
  - Left/right balance
  - Background sounds for masking or focus
  - Headphone accommodations (tone adjustments, amplification)
  - Reduce loud sounds
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**Subtitles & Captioning**

macOS supports system-wide caption preferences for video content.

**Adjustable settings:**

- Caption style (classic, large text, transparent, or custom)
- Closed captions and SDH (Subtitles for the Deaf and Hard of Hearing)

**Custom styles allow:**

- High-contrast outlines
- Adjustable text size
- Background color and opacity

# Motor

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## Pointer Control

Pointer Control helps users who have difficulty using a mouse or trackpad.

### Options include:

- Pointer speed
- Double-click delay
- Spring-loading delay
- Shake mouse pointer to locate
- Alternative pointer options (head pointer, facial expressions)

**NOTE:** The head pointer uses the Mac's camera to track head movement as a pointing device.

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## Keyboard Accessibility

These features support users with limited fine motor control or those who rely on keyboard navigation.

### Options include:

- Sticky Keys
- Slow Keys
- Key Repeat adjustments
- Full Keyboard Access (navigate the entire interface using the keyboard)

**NOTES:** Full Keyboard Access is essential for switch users and power keyboard users.

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## Switch Control

Switch Control allows users to operate the Mac using one or more switches.

### Features include:

- Auto scanning
  - Manual scanning
  - Switch sources (hardware switches, camera, screen)
  - Custom recipes for specialized workflows
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## Voice Control

Voice Control provides full system navigation and dictation using speech.

### Capabilities include:

- Built-in and custom voice commands
- Vocabulary customization
- Number overlays and grid overlays for precise control
- Dictation with high accuracy

# Additional Motor Features

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## Accessibility Keyboard

The on-screen Accessibility Keyboard provides a fully customizable alternative to physical typing.

### Features include:

- Custom panels
  - Dwell control
  - Adjustable layouts
  - Integration with head pointer and switch control
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## Dwell Control

Dwell Control allows users to perform clicks and actions by hovering the pointer for a set amount of time.

### Options include:

- Dwell time
  - Hot corners
  - Action menus
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# Cognitive Support

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## Siri and Spotlight Assistance

Voice-based assistance helps users who benefit from reduced cognitive load. Siri can perform tasks, open apps, and adjust settings, while Spotlight provides quick search and app launching.

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## Reduce Motion and Reduce Transparency

These settings simplify visual effects to support users with vestibular disorders, attention challenges, or sensory sensitivities.

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## Reading Support

macOS includes tools that make reading easier for users with dyslexia, low vision, or attention-related needs.

### Key tools:

- Spoken Content
- Safari Reader (distraction-free reading mode)
- Adjustable fonts and colors in Reader mode

# General Accessibility Features

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## Per-App Settings

These allow users to override accessibility settings for specific apps.

### Options include:

- Increase contrast
- Reduce motion
- Smart Invert
- Larger text

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## Accessibility Shortcuts

Accessibility shortcuts provide quick access to commonly used features.

### Activation methods:

- Command–Option–F5
- Triple-click Touch ID button
- Custom keyboard shortcuts

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## Accessibility Shortcut Menu

This on-screen menu appears when triggered and allows users to toggle multiple accessibility features quickly. It supports keyboard-only navigation and works well with Full Keyboard Access.