5.4.3 Accessibility Facts

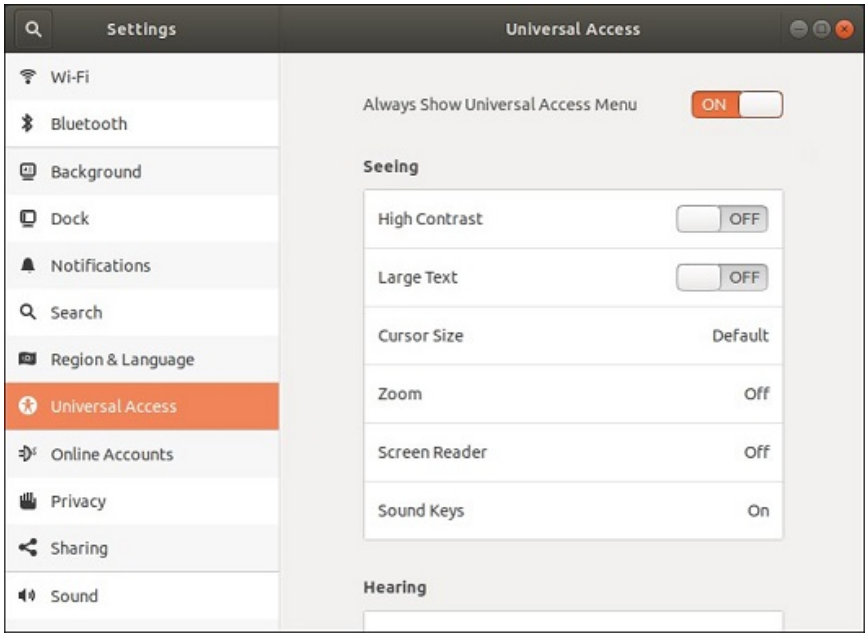
Accessibility options (also known as Universal Access or Assistive Technologies) allow people with tactile, audible, and visual impairments to use Linux systems by changing how the user interacts with the computer, including viewing, sound, typing, and mouse options. This lesson covers the most common options available. The options available will vary depending on which Linux distribution and the desktop (e.g. GNOME vs. MATE) being used.

This lesson covers the following topics:

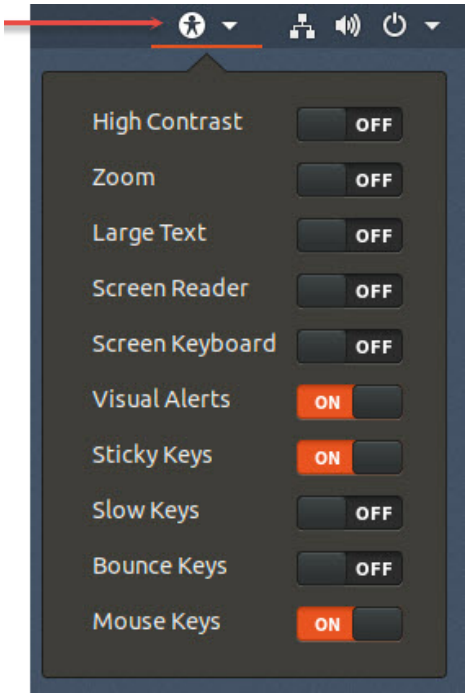
- Configuration and menus
- Sight and hearing options
- Typing options
- Pointing & clicking options

Configuration and Menus

On many Linux distributions, the Universal Access features are enabled by default. However, many of the options within those features are not enabled by default. To configure these options or to enable or disable the Universal Access features as a whole, you will need to access this feature. On many distributions, this feature can be access from the Settings page or by doing a search for Universal Access.



Once Universal Access has been enabled and configured as desired, you can turn each feature on or off by selecting the accessibility icon from the drop-down menu.



Sight and Hearing Options

The following table lists the Universal Access options found in the Seeing and Hearing category.

Seeing	
Feature	**Description**
High contrast	Changes the contrast of the windows and buttons so they're easier to see. This is not the same as changing the brightness of the whole screen, since not all parts of the user interface always change.
Large text	Increases the font size to a preset size.
Cursor size	Provides a menu where you can select cursor sizes from small to large.
Zoom	Turns your mouse into a type of magnifying glass by default. Additional options let you limit which part of the screen is magnified.
Screen reader and Braille	A screen reader reads the text on a screen, including menu and button text. Popular screen readers on Linux systems include the following: ▪ Orca, a free, open-source scriptable screen reader that works with the GNOME desktop. ▪ Emacspeak, a free screen reader that is often bundled with text editors. Linux can also use the following Braille hardware devices: ▪ Braille display, a special type of computer monitor which creates a tactile display of textual information. Many Linux text-mode applications manage Braille display with no configuration changes. ▪ Braille Embosser, which prints a hard copy of a text document using embossed Braille characters. A Linux daemon named *brltty* redirects text-mode output to a Braille device and is often required.
Sound keys	Lets the user hear a beep (or another sound) when the Num Lock or Caps Lock keys are turned on or off.
Hearing	
Visual alerts	Allows a person to be notified when an alert sound is played. Options include: ▪ Flash the windows title ▪ Flash the entire screen

Typing Options

The following table lists the Universal Access options found in the Typing category.

Typing	
Feature	**Description**
Screen keyboard	An onscreen keyboard displays an image of a keyboard which allows a user to use a mouse or touch screen to select keys as if they were pressed on a real keyboard. The GNOME On-Screen Keyboard (GOK) provides the onscreen keyboard, on many distributions, but other applications such as Onboard and Florence can provide the same feature.
Repeat keys	Repeat keys affects how quickly the action associated with the key is repeatedly performed when the key is pressed and held down. For example, if you press and hold a character key, such as the letter 'D", that character is typed repeatedly according to the repeat rate.
Cursor blinking	Determines if the cursor shown will blink and if so, the rate at which it blinks.
Typing assist (AccessX)	Typing Assist lets you configure the following: ▪ Sticky keys, which lets you type keyboard shortcuts one key at a time rather than having to hold down all of the keys at once. For example, instead of needing to press and hold the Ctrl key and then press the C key, with this feature enabled, you can instead press and release the Ctrl key and then press the C key. ▪ Slow keys, which determines the delay or the amount of time that elapses between the time you press the key and when it is accepted. Additional features let you include auditable sounds to aid in this process. ▪ Bounce keys ignores fast key presses of the same key, compensating for when users accidentally press a single key multiple times.

Pointing & Clicking Options

The following table list the Universal Access options found in the Pointing & Clicking category.

Pointing & Clicking	
Feature	**Description**
Mouse keys	This feature lets you move you mouse by means of the numeric keypad. For example, if you need to move the mouse to the left, you press the number 4 key. To move the mouse up, you press the number 8 key. To move your mouse down, you press 2, and so forth.
Click assist	Click Assist includes the following options: ▪ The simulated secondary click option, which allows you to send a double-click by simply holding down the primary mouse button for a specified amount of time. ▪ The hover click option, which sends a mouse click whenever the mouse pointer stops moving for a specified amount of time.
Double-click delay	Double-clicking only happens when you press the mouse button twice quickly enough. If the second press is too long after the first, you'll get two separate clicks, not a double-click. By adjusting this setting, you change the amount of time that can elapse between the first click and the second click to still qualify as a double-click.