Accessibility

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1 Accessibility

1.1 Introduction

This module is designed to help users who have difficulty hearing audible cues, or who have difficulty using a keyboard.

The module is divided into six tabs: **Bell**, **Modifier keys**, **Keyboard Filters**, **Activation Gestures**, **Mouse Navigation**, and **Screen Reader**.

1.1.1 Bell

This panel is divided into an **Audible Bell** section and a **Visible Bell** section.

The top check box labeled **Use System Bell**, determines whether the normal System bell rings. If this option is disabled, the System bell will be silenced.

The next check box down can be used to play a different sound whenever the system bell is triggered. To activate, place a mark in the check box labeled **Use customized bell**, and enter the complete pathname to the sound file in the text box labeled **Sound to play**. If you want, you can select the **Browse** button to navigate through your filesystem to find the exact file.

For those users who have difficulty hearing the System bell, or those users who have a silent computer, KDE offers the *visual bell*. This provides a visual signal (inverting the screen or flashing a color across it) when the system bell would normally sound.

To use the visual bell, first place a mark in the check box labeled **Use visual bell**.

You can then select between **Invert screen**, or **Flash screen**. If you select **Invert screen**, all colors on the screen will be reversed. If you choose **Flash screen**, you can choose the color by clicking the button to the right of the **Flash screen** selection.

The spin box can be used to adjust the duration of the visible bell. The default value is 500 msec, or half a second.

1.1.2 Modifier keys

There are the two sections **Sticky Keys** and **Locking Keys** to this panel.

Use Sticky Keys

If this option is enabled, you can press and release the **Shift**, **Alt** or **Ctrl** keys, and then press another key to get a key combo (example: **Ctrl**+**Alt**+**Del** could be done with **Ctrl**, then **Alt** and then **Del**).

Also in this section is a check box labeled **Lock Sticky Keys**. If this check box is enabled, the **Alt**, **Ctrl** and **Shift** keys stay 'selected' until you 'de-selected' them.

As an example:

With Lock Sticky Keys disabled:

If you press the **Shift** key then press the **F** key, the computer interprets this as **Shift**+**F**. Now if you type a **P**, the computer interprets this as the letter p (no shift).

With Lock Sticky Keys enabled:

If you press the **Shift** key *twice* then press the **F** key, the computer interprets this as **Shift**+**F**. Now if you type a **P**, the computer interprets this as the letter P (**Shift**+**P**). To de-select the **Shift** key, press it again.

1.1.3 Keyboard Filters

There are two sections to this panel.

Use slow keys

    If this option is enabled, you must hold the key down for a specified length of time (adjustable with the spin box) before the keystroke will be accepted. This helps prevent accidental key strokes.

Use bounce keys

    If this option is enabled, you must wait for a specified length of time (configurable with the spin box) before the next key press can be accepted. This prevents accidental multiple key strokes.

1.1.4 Activation Gestures

There are two sections to this panel.

Activation Gestures with these options:

    Use gestures for activating sticky keys and slow keys
    Here you can activate keyboard gestures that turn on the following features:
    Mouse Keys: Press **Shift**+NumLock
    Sticky keys: Press **Shift** key 5 consecutive times
    Slow keys: Hold down **Shift** for 8 seconds
    Turn sticky keys and slow keys off after a certain period of inactivity

Notification with these options:

    Use the system bell whenever a gesture is used to turn an accessibility feature on or off
    Show a confirmation dialog whenever a keyboard accessibility feature is turned on or off
    If this option is checked, KDE will show a confirmation dialog whenever a keyboard accessibility feature is turned on or off.
    Ensure you know what you are doing if you uncheck it, as the keyboard accessibility settings will then always be applied without confirmation.
    Use KDE's system notification mechanism whenever a keyboard accessibility feature is turned on or off

Click the **Configure Notifications** button to open a dialog which allows you to edit the notifications for status changes of all keys.

1.1.5 Mouse Navigation

This tab allows you to configure the keyboard number pad keys as a mouse-type device. This may be useful when you are working on a device without another pointing device, or where you have no other use for the number pad.

Move pointer with keyboard (using the num pad)

    To enable keyboard mouse mode, you need to select the check box labeled **Move pointer with keyboard (using the num pad)**. When you do this, the other settings will become enabled, and you can customize the keyboard pointer behavior further, if required.

The various keys on the number pad move in the direction you would expect. Note that you can move diagonally as well as up, down, left and right. The **5** key emulates a click to a pointer button, typically left mouse button. You change which button is emulated by using the **/** key (which makes it left mouse button), ***** key (which makes it middle mouse button) and **-** (which makes it right mouse button). Using the **+** emulates a double click to the selected pointer button. You can use the **0** key to emulate holding down the selected pointer button (for easy dragging), and then use the **.** to emulate releasing the selected pointer button.

Acceleration delay

This is the time (in milliseconds) between the initial key press and the first repeated motion event for mouse key acceleration.

Repeat interval

This is the time in milliseconds between repeated motion events for mouse key acceleration.

Acceleration time

This is the time in milliseconds before the pointer reaches a maximum speed for mouse key acceleration.

Maximum speed

This is the maximum speed in pixels per second the pointer can reach for mouse key acceleration.

Pointer acceleration

This is the amount of acceleration to apply to mouse key acceleration.

1.1.6 Screen Reader

Install a screen reader application like Orca together with speech-dispatcher.

Test that sound from speech dispatcher works using the command **spd-say hello** in a terminal.

In addition you need a text to speech synthesizer like e.g. espeak.

Enable the screen reader in the checkbox, logout and restart your desktop session.

For Plasma itself, make sure to use the traditional **Application Menu**, and check that this menu has a keyboard shortcut associated (**Alt**+**F1**). When pressing this shortcut, the menu should open and be read when navigating the menu with the arrow keys.