Mobile Design Pattern: Slider Control

This design pattern is part of the Mobile Design Patterns series.

Description

A control which enables the user to choose one distinct value within a finite range by dragging (or simulating the dragging) of) one or more sliders along a single axis.

Advantages

- Highly visual and intuitive — especially when representing a familiar scale of values.

Disadvantages

- Only suitable when the list of values is short and there is enough context to make an informed decision regarding the likely impact of the chosen increment.

Use when

- The user's mental model of a series of values is closely tied to an increasing or decreasing scale and limited amount of discrete values. Ex. Controls to increase/decrease brightness, contrast, intensity or volume.

Use how

Direct manipulation

- The slider works in a similar manner to a real-world physical control. The user presses on the slider handle (to simulate grasping) then (while continuing to press), drags the handle to the desired incremental stop position.
- A two-handle control can also be used (on touch devices only) to set a range of values. In this case, one slider provides the minimum value and the other the maximum value—thereby creating a range.

Indirect manipulation

- The slider handle is either provided with immediate focus or the user can focus the control then manipulate it. (see example below)
- The slider handle is mapped to the Left/Right keys (for a horizontal control) or Up/Down keys (for a vertical control).
- Each click of the keys moves the slider handle by one pre-set increment.
- Holding 'Down' may automatically repeat the adjustment until the key is released.

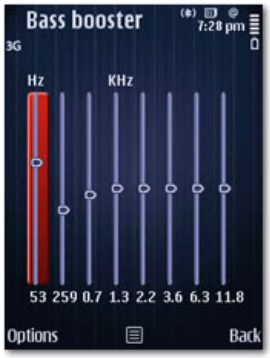

Figure: The S60 Equalizers must each be focused before they can be manipulated.

Design Tips

- Adding tick marks (or other visual way points) enables users to more accurately gauge the incremental change in values.

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- Pairing the slider with a visual representation of the change in value can also be useful. Ex. A Real-time RGB colour picker updates the colour values in real time as you manipulate each slider.

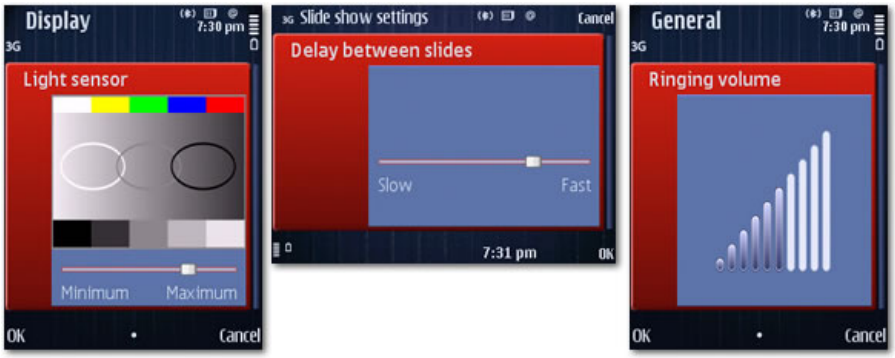

Figure: Various sliders in use within S60; each providing varying degrees of feedback. The 'Ringing Volume' control functions in a in a similar manner but does not provide an actual slider—only the accompanying 'increasing scale' visualization.

Figure: Examples of Qt embedded widget sliders for touch devices.

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