Guidelines for Mobile Interface Design

This article needs to be updated: If you found this article useful, please fix the problems below then delete the {{ArticleNeedsUpdate}} template from the article to remove this warning.

Reasons: hamishwillee (09 May 2012)
This needs significant update in order to include and focus on the more modern interface guidelines for touch screen devices.

Introduction

The interface design is a critical factor for the success of any Application or even a Mobile Device. Designing any user interface is about creating a balance between "demand and supply". Well I am certainly not talking about economics, its about what all user is looking for and what all you can provide with all the restriction a developer face. To understand the user needs and presenting it in the best way is what the challenge here. We all know how some time a simple page with a text input field creates a revolution.

The now proposed guidelines seek to improve the user experience and apply to the majority of the applications for mobile devices.

Input Technique

One of the most important aspects to be consider before starting with Interface Design is to see how user is interacting with the device. Following are the technique currently in use:

Key Based Input

Interacting via physical keys have many restrictions but till now they proved to be the most efficient technique. Different key based techniques are:

Telephone Keypad

It is the most commonly used type of key board.

Half Qwerty Keypad

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Qwerty Keypad

Multi-Media Keys

Touch Based Input

Interface design for touch based devices can be more versatile. Since touch is a new thing in mobiles, currently lots of possibilities are looked into and lots of creativity can be seen. There are few ways touch screens can be accessed :

Finger Based

Stylus Based

User Interface

Enable shortcuts for frequently used functions

Time is a critical factor for the users that generally need “Just in time” information in the mobile context. That is why, reducing the amount of steps required for the user to perform frequent operations facilitates his adaptation to the application device.

Maintain the used informed of its actions

Always maintain the user informed about what is happening in the application.. It can be done using sounds, dialogs, messages, etc.

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Follow the device's interface pattern

Using the system's native interface components reduces the learning curve of the user regarding the application once the interface will be similar to others that he is already used to.

Positioning of buttons, menus, etc

It's a subset of the last section. It is important to pay attention to the menu positioning on the screen. For example, in the Nokia devices in general have the application trigger located on the left side of the screen while on the right is located the trigger used to cancel an action. The same positioning is used for YES/NO actions.

References

[1] - G ONG, J., AND TARASEWICH, P. 2004. Guidelines for handheld device interface design. In Proceedings of DSI 2004.
[2] - Programming Mobile Devices: An Introduction for Practitioners by Tommi Mikkonen. Wiley & Sons. ISBN-10: 0470057386

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