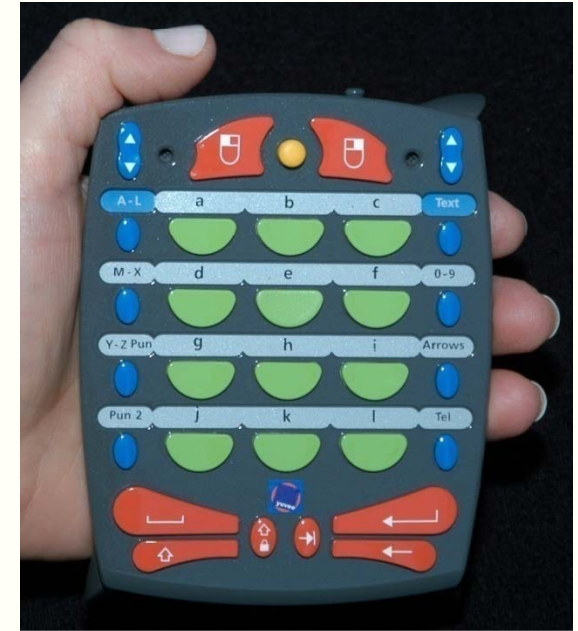




Dynamic Keypads: *Terminology*



October 23, 2009
© Yuvee, Inc. All rights reserved.



Names/Terminology Matters

- If you can name something in a word or two, and everyone understands what you are talking about, then dialogue works
- The opposite is also true: If you have to spend a long time defining something before anyone even understands what you are talking about, let alone discussing the merits, the dialogue is far more difficult
- User interface examples
 - Clickwheel – it is the iPod physical user interface
 - Wii – it is the Nintendo motion game controller
 - QWERTY – it is the primary keyboard for English text entry
 - Mouse – it is the primary cursor control device for PCs



Dynamic Keys

- There is a new type of physical and virtual keypad that is being introduced to the market but that does not have a coherent terminology associated with it
- This key or set of keys consists of
 - One or more programmable (or soft) real keys or buttons, that are unlabeled
 - One or more arrays of these keys
 - A display or set of displays with active viewing areas associated with each key
 - whether on or in each key or physically adjacent to each key and whether a single physical or virtual display is associated with each key or whether one or more panels of displays have separate active viewing areas associated with each key
 - A pattern of use associated with assigning the desired value to each key and placing a representation of that value on the display area associated with the key



No generally agreed-upon name for these keys

- Generically, visually-cued UI can sometimes be referred to with the acronym “WYSIWYN” for “what you see is what you need”
 - This is a parallel term to WYSIWYG for “what you see is what you get” that applies, for instance, to the view of a document on a screen as the same as what will print
- Arranged around the d-Pad of mobile devices (and usually with a generic icon label), these keys are sometimes referred to as “soft keys” and the viewing area associated with them tends to be the area of the main display located immediately above them
- Some devices that have some version of keys with displays or changeable backgrounds associated with the keys, include
 - the Samsung SCH-u750
 - the Motorola Rokr E8
 - Art Lebedev’s Optimus Maximus keyboard
 - United Keys’ keypads



Terminology

- Some of the phrases associated with these devices' key/display technology includes
 - Morphing keys
 - Magic keys
 - Modeshift or mode-shifting
 - Soft or programmable keys
 - Transforming keys
 - Redefineable keys



Yuvee Terminology

- In Yuvee's materials, some dating back to 2004 and earlier, this new type of user interface system has been branded as "NeoKeys[®]", and is sometimes referred to in its literature as
 - mode switch or mode switching keys or keypad
 - dynamic or mode switching user interface system/technology
 - dynamic keys or keypad
 - visually-cued keys or keypad
 - hybrid keys or keypad
 - Hybrid referring to, for instance, the integration of displays and keys, as opposed to non-hybrid user interfaces that separate the display area and the keys or use just a touchscreen
 - HMI or MMI for command, text and numeric entry
 - HMI standing for human/machine interface
 - MMI standing for man/machine interface



Other Yuvee Phrases

- Yuvee has also coined various phrases for its dynamic or mode switching user interface system, including
 - One Keypad, Infinite Modes™
 - A New Way to do Everything™
 - Your Life a la Mode™
 - Launch anything with a scroll and a click™
 - Launcher™
 - NeoKeys Launcher™
 - Richness + Simplicity™



A “Launcher”

- Yuvee uses the term “Launcher” to contrast with
 - The “Desktop” that is generally used on such devices as PCs, laptops and the iPhone to display and organize icons that, when clicked, start up applications
 - The “Browser” that is the main interface for accessing, surfing and using the Internet/Web
 - A physical keyboard or keypad of labeled keys (such as a QWERTY keyboard (large or small) or the standard numeric set of 12 phone keys
- A “Launcher” – whether physical or virtual
 - Organizes and launches, using the exact same system and pattern of use pretty much anything: applications, websites, songs, photos, videos, widgets, etc.



The Missing Piece of the Puzzle of Dynamic Keys

- Regardless of the terminology, there is a fundamental design issue at the core of making this sort of technology work in the context of multi-function, multi-application devices
- That core issue is: How does the user change the keys into the mode he/she wants so that what the keys do (and what is displayed in association with the keys) reflects what the user needs
 - Otherwise, the user is presented with an almost impossible puzzle: How do I use this set of dynamic keys when I can't figure out how to get it to change into the mode that I want the device to be in?
 - This same issue is faced by third party app developers: How can they program this set of dynamic keys when there is no set of consistent rules for how it works in all contexts?
- The solution to this is at the core of Yuvee's dynamic or mode switching keys, and is patented and has patents pending
 - see the list available online on Yuvee's websites (www.yuvee.com, www.neokeys.com and www.neokeyslauncher.com)



Related white papers

- Related “White Paper” Slide Decks
 - Monetizing the Keypad Real Estate on Mobile Devices
 - The Changing Face of User Input on Mobile Devices
 - Compound versus Elemental Devices – New Mobile Device Market Strategies
 - The Incredible Shrinking Search Results Page
- Download these from
 - Links from www.yuvee.com
 - www.slideshare.net
 - Tim Higginson’s profile on www.linkedin.com



Contact us

- Contact us for
 - More information on this and related issues
 - Other advisory services



About Yuvee

- Yuvee
 - develops and licenses advanced user interfaces and related device designs that make the mobile Internet and advanced mobile apps/data services effortless and immersive
 - provides advisory services in multiple areas relating to mobile and converged devices including
 - differentiated, physical and graphical user interface design
 - mobile and converged device design
 - innovation management processes (“IMP”) optimization
- Contact
 - Tim Higginson at (847) 962-1623 or info@yuvee.com
 - www.yuvee.com

October 23, 2009

© Yuvee, Inc. All rights reserved. Patents issued and pending – see lists at www.yuvee.com.

Yuvee and NeoKeys are trademarks of Yuvee, Inc.

Other trademarks are the property of their respective owners.