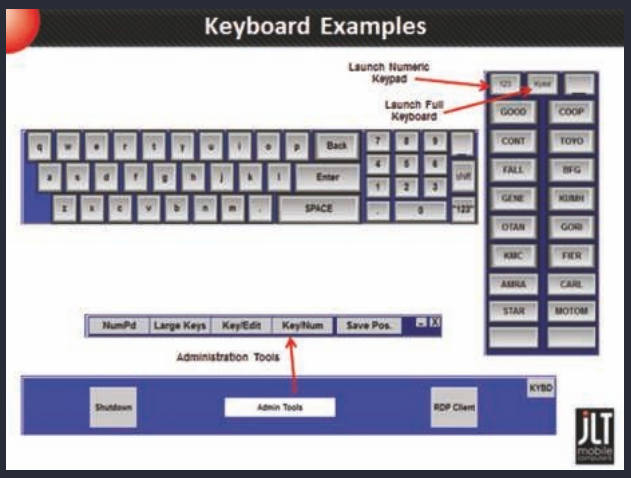
Virtual Keyboard

The traditional keyboard could soon be a thing of the past, says Christian Funk of JLT Mobile Computers.



As a vital part of the supply chain, today's warehouses need to be efficient, tightly integrated profit centres. Making this happen relies on warehouse employees' efficiency as they go about shipping and receiving, fulfilling and picking orders, and doing inventory. All these functions rely on warehouse computer terminals that are designed for the job they are doing, whether that's a computer mounted on a forklift or a handheld tablet device. The problem is, sometimes the design of these terminals prevents workers from operating as efficiently as they otherwise could. Some still feature outdated mechanical keyboards that are completely inadequate for the industrial environment. Typical warehouse functions require the same key to be pressed over and over again, resulting in broken and worn out keys, which are expensive and time consuming to maintain and replace. Modern user interface designs can put that keyboard functionality directly onto the terminal's touch screen using a virtual keyboard, increasing employee productivity, efficiency, user acceptance and accuracy.

A virtual keyboard is part of a terminal's graphical user interface (GUI), and allows areas of the touch screen to perform the job of the mechanical version, only much more efficiently. Almost all consumers are familiar with this concept as it applies to smartphones and tablets, where a virtual QWERTY keyboard pops up when required for typing, prompted by the application that requires it. The same concept can be applied to rugged and industrial touch screen computers, saving the space a mechanical keyboard would have taken up because the screen is now both the display and the keyboard.

Customisation of a virtual keyboard is where the big improvements in productivity and efficiency are made. Unlike the mechanical variety, a virtual keyboard is completely flexible and can be made to display only a certain selection of the most-used keys. For example, consider a logistics/warehouse worker who spends 97% of their time scanning numbers and entering quantities. If a label doesn't scan, they enter the numbers by hand. They don't need the letters, the F1-F12 keys, the arrows, etc. A virtual keyboard can be created which pops up when required, but only displays the numbers 0-9. Any keys not required are eliminated, and the remaining keys can be increased in size to make them easier to find, while being positioned such that the application is still visible.

Virtual keyboards can be extensively customised to suit any warehouse job.

They can be made vertical, horizontal, or even diagonal, as the application demands. They can have dim or bright, transparent or opaque keys. They can have large keys, perhaps for easier use with a gloved hand in a cold storage facility. They can display larger fonts, perhaps to accommodate an ageing workforce. Imagine the time saved by not having to remove and replace gloves or reading glasses every time a key is pressed.

An interesting side effect of optimising a keyboard to its specific function is improved accuracy of the data that's being entered. Operating a warehouse efficiently relies on accurate data. A customised keyboard reduces the amount of manual data entry required, reducing the amount of errors such as spelling mistakes that make it into your computer system.

A modern user interface including a virtual keyboard will also vastly improve user acceptance of the technology. No more slowly searching on a computer keyboard for the right key. No more correcting incorrectly scanned barcodes by looking down at the keyboard, then back up at the screen, then back down again for every character entered.

www.jltmobile.com