

Describe the process by which keystrokes are recognized by software? Describe the technology for touchscreen monitors? What is next?

When a key is pressed on a modern keyboard, a circuit is closed, and the microprocessor on the keyboard compares the circuit location to a character map in its ROM. Through a USB, PS/2, or infrared connection, the keyboard signals the CPU, where a keyboard controller is monitoring for keystrokes (Tyson, 2009). The signal is then passed to the Operating System, where a KeyDown, KeyPress, or KeyUp event is recognized and the system determines whether the key combination is a signal specifically for the OS, such as CTRL+ALT+DEL, or a keystroke for other software (Microsoft, 2009).

Touchscreen monitors use a variety of technological methods to detect touch input, resistive, where two layers of material are brought into contact when touched, capacitive, where a layer stores an electric charge that is transferred to the user when touched, and surface acoustic wave, where transducers along the monitor's frame send and receive signals that are disturbed at X and Y coordinates when the screen is touched (How Stuff Works, 2009). Jeff Han invented an amazing touch screen that he introduced in a TED talk in 2006, which was used prominently in news coverage of the 2008 election (Han, 2006). I want one of these to play with one day.

I think the Virtual Keyboard is a pretty neat idea that holds promise. This is a small, portable device you can set on a desk, and it will project a keyboard in front of it. You can then type on this keyboard made of light. It's marketed toward PDA's presently, where it's an ideal method for overcoming those device's very tiny keyboards (VKB, 2009). As PDAs get more powerful, I think technologies like this will really take off.

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