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CONTEXTUAL USER EXPERIENCE BASED ON ALTITUDE OR AIR PRESSURE

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Contextual User Experience Based on Altitude or Air Pressure

Abstract: An air pressure or altitude sensor in a computer is used to automatically adjust operating settings of the computer based on an altitude, or change in altitude, of the computer.

This disclosure relates to the field of portable computers.

A technique is disclosed that uses air pressure, or another altitude measurement, to determine the environment in which a computer is operating and adjust settings within the computer and accessories.

In some cases, the environment in which a computer is being used determines settings or other features of a computer's operating environment may be determined based on the altitude of the computer. One such common scenario involves air transportation. The user may be working on a notebook computer at the airport gate. During takeoff, usage of electronic devices is prohibited. When the plane has reached cruising altitude, the computer can be used, but in "airplane mode" in which certain communications links must be disabled. At present, it is the responsibility of the user to turn the electronic device on and off, and to turn particular settings on and off.

According to the present disclosure, an air pressure or other altitude sensor is added to a computer in order to determine the operating elevation of the computer and adjust settings in the computer and its accessories accordingly. Changes in altitude/pressure, and the speed at which such changes occur, can be used by the computer to determine when to turn on and off certain settings automatically in the background. These settings can include, among others, Airplane mode (wifi, Bluetooth, 3G/4G, etc); Strength of wireless; Display settings (brightness, sureview); Audio settings (headset vs internal); and Keyboard backlighting.

To take the airplane example, assume the user at a airport gate area is operating in normal work mode. As they board a plane they continue working in normal mode. Once the airplane starts taking off (which may be determined based on a combination of pressure and speed of movement obtained from another sensor), airplane mode can be automatically enabled to turn off Bluetooth, wifi, cellular, etc. Once the normal altitude is reached, certain settings can be turned back on such as wifi (if available) and Bluetooth. Other settings can also be modified, such as raising the audio output level due to engine noise in the plan. As another example, the strength of the WiFi signal could be adjusted lower since the computer is in close proximity to access points on the aircraft. Doing so can also aid in reducing interference and increasing battery life.

The disclosed technique advantageously increases user productivity due to automatically configuring settings based on environment. It reduces the time loss due to a change in environments. And it optimizes use of system resources for improved battery life and other benefits.

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