INFORMATION PROCESSING APPARATUS AND PROCESSING PROGRAM IN INFORMATION PROCESSING APPARATUS

CROSS REFERENCE TO RELATED APPLICATIONS

This application is a Continuation of and is based upon and claims the benefit of priority under 35 U.S.C. §120 for U.S. Ser. No. 11/188,697 filed Jul. 26, 2005, the entire contents of each which are incorporated herein by reference. U.S. Ser. No. 11/188,697 also claims the benefit of priority under 35 U.S.C. §119 from Japanese Patent Application No. 2004-239687, filed Aug. 19, 2004.

BACKGROUND OF THE INVENTION

The present invention relates to a technical field of an information processing apparatus and a processing program in the information processing apparatus, and particularly to a technical field in which usability of the information processing apparatus is improved and appropriate operation is performed by effecting control according to a result of detection of an opened state or a closed state of a foldable keyboard.

Information processing apparatuses typified by personal computers have an apparatus main unit incorporating predetermined processing means, controlling means, and the like and a keyboard, for example, for inputting various information to a display. The apparatus main unit and the keyboard are connected to each other via a predetermined port provided for the apparatus main unit, for example a PS/2 (Personal System/2) port or a USB (Universal Serial Bus) port.

With some of such information processing apparatuses, the keyboard is foldable via a hinge part. Operating keys provided on the keyboard are operated in an opened state of the keyboard, and improvement in portability and space saving are achieved by closing and folding the keyboard (see for example Japanese Patent Laid-Open No. 2002-73255).

SUMMARY OF THE INVENTION

With the conventional information processing apparatus described above, however, no consideration is given to an unusable state of the keyboard. For example, even when the keyboard is closed and is thus in an unusable state, the same power supply as when the keyboard is in an opened state is performed to the keyboard, and even when the keyboard is in the closed state, an application supposing use of the keyboard can be started.

Thus, there is a lot of unnecessity in operation, and it is difficult to say that good usability is provided for a user.

There is a need for an information processing apparatus and a processing program in the information processing apparatus according to embodiments of the present invention to solve the above-described problems, and improve usability of the information processing apparatus and make operation of the information processing apparatus appropriate.

According to an embodiment of the present invention, there is provided an information processing apparatus including a keyboard that has a plurality of operating keys and is foldable via a hinge part, the keyboard being set in a closed state in which the operating keys are closed and in an opened state in which the operating keys are opened, and an apparatus main unit that is connected with the keyboard and performs a process corresponding to an operation of the operating keys on the keyboard. The closed state and the opened state of the keyboard are detected, and operation of one of the apparatus main unit and the keyboard is controlled according to a detection result.

According to an embodiment of the present invention, there is provided a processing program in an information processing apparatus. The processing program includes the steps of detecting the closed state and the opened state of the keyboard, and controlling operation of one of the apparatus main unit and the keyboard according to a result of detection in the detecting step.

Thus, in the information processing apparatus and the processing program in the information processing apparatus according to the embodiments of the present invention, the apparatus main unit or the keyboard is operated on the basis of control according to a result of detection of the closed state and the opened state of the keyboard.

The information processing apparatus according to an embodiment of the present invention includes a keyboard that has a plurality of operating keys and is foldable via a hinge part, the keyboard being set in a closed state in which the operating keys are closed and in an opened state in which the operating keys are opened; and an apparatus main unit that is connected with the keyboard and performs a process corresponding to an operation of the operating keys on the keyboard. The closed state and the opened state of the keyboard are detected, and operation of one of the apparatus main unit and the keyboard is controlled according to a detection result.

Hence, appropriate operation can be performed according to a state of use of the keyboard, and usability of the information processing apparatus can be improved.

According to an embodiment of the present invention, when the closed state of the keyboard is detected, supply of power to the keyboard is limited, and a low power consumption mode is set. Therefore unnecessary power consumption is prevented, and power can be saved.

According to an embodiment of the present invention, when the closed state of the keyboard is detected, one of operating means provided to the apparatus main unit, for performing various operations, and inputting means provided to the apparatus main unit, for inputting various information, is set in a usable state. Thus, functions necessary for operation can be secured for a user even when the keyboard cannot be used, so that usability of the information processing apparatus can be improved.

According to an embodiment of the present invention, when the closed state of the keyboard is detected, an inputting screen for inputting various information is started. Thus, functions necessary for operation can be secured for a user even when the keyboard cannot be used, so that usability of the information processing apparatus can be improved.

According to an embodiment of the present invention, when the opened state of the keyboard is detected, the keyboard is set in a usable state. Thus, good operability of the information processing apparatus can be ensured.

According to an embodiment of the present invention, when the opened state of the keyboard is detected, one of operating means provided to the apparatus main unit, for performing various operations, and inputting means provided to the apparatus main unit, for inputting various information, is set in an unusable state. Thus, unnecessary power consumption is prevented, and power can be saved.

According to an embodiment of the present invention, when the opened state of the keyboard is detected, a utility for making various settings on the keyboard is set in an executable state. Thus, functions necessary only when the keyboard is usable are secured, so that usability of the information processing apparatus can be improved.