

RECORDING MEDIUM, COMPUTER AND METHOD FOR SELECTING COMPUTER DISPLAY ITEMS

FIELD OF THE INVENTION

[0001] This invention relates to a recording medium, computer and method for selecting computer display items intended to make the selection and entry of items by pushing cursor keys, return keys or other simple ON/OFF switches by a user an easy-to-use interface for users.

BACKGROUND OF THE INVENTION

[0002] Among the methods of selecting and entering a desired item from a menu displayed upon a screen of a computer or a TV monitor, the most basic method is the method typically adopted in computers. In a computer, cursor keys are pushed by the user the same number of times as the number of items before the destination item, and when the cursor reaches the intended item, the return key is pushed to select and enter the intended item.

[0003] On the other hand, so-called pressure-sensitive type controllers are used as input devices for computers, and as input devices for entertainment systems represented by game machines, for example. Such pressure-sensitive controller is a unit wherein, when pressure is applied with a finger of a user directly to a control element connected to a pressure-sensitive device of the controller, the pushing pressure is provided as an output as a pressure-sensing value. A specific example thereof is, for example, a pressure-sensitive type controller disclosed in the publication of examined Japanese utility model application No. JP-B-H1-40545, wherein pressure-sensitive output is provided as input to a VCO (variable control oscillator) and the output of the VCO is used for repeated fire in a game.

SUMMARY OF THE INVENTION

[0004] It is an object of the present invention to make the selecting and entering of items by pushing cursor keys, return keys or other simple ON/OFF switches an easier-to-use interface for users.

[0005] This and other objects of the present invention are attained by a recording medium on which is recorded a computer-readable and executable software program that performs processing by taking as instructions an output from a controller which has pressure-sensitive means, wherein the software program comprises a processing program that moves items displayed on a screen of a computer, depending on the output from the controller.

[0006] A computer according to this invention comprises a controller which has pressure-sensitive means for sensing a pushing pressure of a user on the controller; means for determining a movement distance in accordance with the pressure sensed by the pressure-sensitive means; and means for changing the display of the monitor of the computer, based on said movement distance thus determined.

[0007] A method of selecting computer display items according to this invention comprises the steps of: using a controller which has pressure-sensitive means to sense a pushing pressure of a user on the controller; determining a movement distance in accordance with the sensed pressure

sensed by the pressure-sensitive means, and changing the display of the monitor based on the movement distance thus determined.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] FIG. 1 is a diagram of connecting a controller to an entertainment system;

[0009] FIGS. 2A and 2B diagrammatically show a menu and a cursor;

[0010] FIG. 3 is a table for selecting the number of frames depending on a pressure-sensing value;

[0011] FIG. 4 is a flowchart showing the processing of a program used for displaying items;

[0012] FIG. 5 is a perspective view of the controller connected to the entertainment system;

[0013] FIG. 6 is a block diagram of the entertainment system;

[0014] FIG. 7 is a top view of the controller;

[0015] FIG. 8 is an exploded perspective view of a second control part of the controller;

[0016] FIGS. 9A-9C are cross-sectional views of the second control part of FIG. 8;

[0017] FIG. 10 is a diagram showing an equivalent circuit for a pressure-sensitive device;

[0018] FIG. 11 is a block diagram of the main parts of the controller;

[0019] FIG. 12 is an exploded perspective view of a first control part of the controller;

[0020] FIG. 13 is a cross-sectional view of the first control part of the controller shown in FIG. 12;

[0021] FIG. 14 is a diagram showing an equivalent circuit for a pressure-sensitive device;

[0022] FIG. 15 is a graph showing the characteristic of the signal output;

[0023] FIG. 16 is a block diagram showing the overall constitution including the resistor; and

[0024] FIG. 17 is an exploded perspective view of the third control part of the controller.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0025] In a controller that uses a pressure-sensitive device, when the button which is the control element is pushed by a user, not only is the presence of a pressure-sensing output detected, for example, as the ON/OFF of a switch, but also pressure-sensing value output which depends on the pushing pressure is obtained. On the other hand, in software or games that use pressure-sensing value output, various processing or actions can be entered depending on the pressure-sensing value output. In this embodiment, even selecting menu items on the screen by operating a control element, it is possible to change the rate of movement of the cursor depending on the pressure-sensing values based on the pushing operation of various control elements.