

which a selection candidate is changed over in order of the display output application→the shape presentation application.

[0365] In this example, the input device **800** is connected with the control unit **15** shown in FIG. **20**, in which the CPU **32** thereof controls the driving power supply **55A**, which is not shown, so as to apply the driving voltage through the plurality of electrodes **52** and the electrode pattern **29e** of the touch-sensitive sheet member **180** corresponding to the video contents displayed on the display unit **29**, and the electrically conductive rubber **182** forms the convex and concave shapes at predetermined positions corresponding to the video contents.

[0366] By setting these as the selection condition of the sense of touch and/or the display function, the CPU **32** inputs an application execution instruction at step **ST81** of the flow-chart shown in FIG. **41**. The application execution instruction is given to the CPU **32**, for example, by making power switch-ON information as a trigger. Thereafter, the process shifts to step **ST82** where the CPU **32** branches the control thereof depending on whether the application execution instruction is an execution instruction of the display output application or other application execution instruction.

[0367] If the application execution instruction is an execution instruction of the display output application accompanied with the shape presentation application or only the display output application instruction, the process shifts to step **ST83** where the CPU **32** reads the control information of the display output application. The control information is made correspondence with the display output application, the shape presentation application or the like beforehand. The CPU **32** controls the output(s) of the display unit **29** and/or the touch-sensitive sheet member **180** based on the control information.

[0368] In this example, because there is assumed a case in which even if the application execution instruction is an execution instruction of the display output application, the shape presentation application is also executed in parallel, the CPU **32** branches the control thereof depending on the contents of the application execution instruction even in step **ST83**. If accompanying with the execution of the shape presentation application, the process shifts to step **ST84** where the CPU **32** controls the display unit **29** and the touch-sensitive sheet member **180** so as to function the display of the icon images for the operation keys and the sense of touch representation by the electrically conductive rubber **182** simultaneously.

[0369] For example, the CPU **32** outputs the display data and the shape presentation signals **D1**, **S1**, **D2**, **S2**, **D3**, **S3**, **D4**, **S4**, **D5**, **S5**, **D6**, . . . and so on to the input device **800** by the data format **DF1** shown in FIG. **40A**. The display data **D1**, **D2**, **D3**, . . . and so on and the shape presentation signals **S1**, **S2**, **S3**, . . . and so on are packetized and applied between the electrode pattern **29e** and the wiring pattern group **57** alternately. The items of the display data **D1**, **D2**, **D3** . . . and so on are respectively digital-analogue-converted and made as an image signal **Sv**. The display unit **29** displays the icon images for the operation keys based on the image signal **Sv**. The driving power supply **55A**, which is not shown, applies the driving voltage to any of the plurality of electrodes **52** and the electrode pattern **29e** of the touch-sensitive sheet member **180** at the positions thereof corresponding to the display contents of the icon images for the operation keys. Thus, it is constituted such that the electrically conductive rubber **182** forms

the convex and concave shapes at predetermined positions corresponding to the image contents. Thereafter, the process shifts to step **ST88**.

[0370] At the above-mentioned step **ST83**, if the application execution instruction is an execution instruction of only the display output application, the process shifts to step **ST85** where the CPU **32** controls the display unit **29** so as to function only the display of the icon images for the operation keys. For example, the CPU **32** outputs the display data **D1**, **D2**, **D3**, **D4**, **D5**, **D6** . . . to the input device **800** by the data format **DF3** shown in FIG. **40C**. The items of the display data **D1**, **D2**, **D3** . . . are applied between the electrode pattern **29e** and the wiring pattern group **57** by using the every other packet or the two packets. The items of the display data **D1**, **D2**, **D3** . . . are respectively digital-analogue-converted and made as an image signal **Sv**. The display unit **29** displays the icon images for the operation keys based on the image signal **Sv**. Thereafter, the process shifts to the step **ST88**.

[0371] Also, at the above-mentioned step **ST82**, if the application execution instruction is an execution instruction of an application other than the display output application, the process shifts to step **ST86** where the control is branched depending on whether the application execution instruction is an execution instruction of the shape presentation application or an execution instruction of the other application. If the application execution instruction is an execution instruction of the shape presentation application, the process shifts to step **ST87** where the CPU **32** reads the control information of the shape presentation application. The CPU **32** controls the driving power supply **55A**, which is not shown, based on the control information, thus applying the driving voltage to the plurality of electrodes **52** and the electrode pattern **29e** of the touch-sensitive sheet member **180**. This enables the electrically conductive rubber **182** to form the convex and concave shapes at predetermined positions. Thereafter, the process shifts to the step **ST88**.

[0372] In the step **ST88** to which the process shifts, the end of the input processing in the input device **800** is judged. For example, the CPU **32** detects the end-instruction outputted from a high rank control system. If the end-instruction is not detected, the process returns to the step **ST81** where the above-mentioned processing is repeated. If the end-instruction is detected, the input processing in the input device **800** is ended.

[0373] In this manner, the input device **800** as the eighth embodiment is provided with the display device **129** with the touch-sensitive variable sheet function, which has the embodiment of the touch-sensitive sheet member **180**, so that even if the display surface is observed to be a flat shape, when the icon images or the like displayed on the display unit **29** are touched with the finger of the operator and the finger is slid on the upper portion of the electrically conductive rubber **182** under the display screen, it becomes possible to present the input operation accompanied with the concave and convex feeling. Thus, it becomes possible to provide the input device **800** with the programmable touch-sensitive variable sheet function for icon touch.

[0374] According to the above-mentioned embodiment, the DC driving voltage is applied to the electrodes **52** corresponding to the respective operation keys and the electrode pattern **29e** from the driving power supply **55A** with the voltage-level thereof being changed variably. Such a configuration enables the position, which corresponds to the individual operation key, of the electrically conductive rubber