

FORM INPUT PROCESSING

CROSS REFERENCE TO RELATED PATENT APPLICATIONS

This application claims foreign priority to Chinese Patent Application No.
5 201310326008.2 filed on 30 July 2013, entitled "Form Processing Method and Terminal,"
which is hereby incorporated by reference in its entirety.

TECHNICAL FIELD

The present disclosure is related to the field of computer technology, and more
10 particularly, to a method and a terminal for form processing.

BACKGROUND

With the development of terminal technology, terminals equipped with touchscreen
as a basic input method are widely used as they are small and can be conveniently carried.
15 Currently tablet personal computers (also referred to as tablet PC, flat PC, tablet, slate) and
touchscreen cell phones promoted by various terminal manufacturers are typical terminals
that use the touchscreen as the basic input method.

The touchscreen on the tablet is also referred to as a digital panel. A user does not
need to use a traditional mouse and keyboard as an input device. Instead, the user can user
20 his/her finger to directly operate the touchscreen. A purpose of inputting information to the
table is achieved through a handwriting recognition software installed at the tablet or a soft
keyboard displayed on the touchscreen.

Typical information inputting processes involve the tablet receiving information that
the user inputs through a form displayed at the touchscreen. The form is an input page that
25 is responsible for collecting data. The form has three basic components, i.e., a form tab, a
form field, and a form button.

The form tab may include a URL of a CGI program that processes information
collected by the form and a method that submits the information collected by the form to a
server.

30 The form field may include at least one input box. The input box for data may be a
text box, a password box, a hidden field, a multiple-line text box, a multiple-choice box, a
single-choice box, a drop-down box, a file upload box, etc., to input collected information.

CLAIMS

1. A method comprising:
fixing a position of a cursor at a screen of a terminal during a process of inputting information into multiple input boxes of a form;
determining multiple to-be-processed input boxes among the multiple input boxes of the form, the to-be-processed input boxes being determined based on each input box not having information input and based on the information input into each input box having information input;
applying a sequence to the multiple to-be-processed input boxes;
determining a respective to-be-processed input box of the multiple to-be-processed input boxes at the form according to the sequence of the multiple to-be-processed input boxes;
determining a displacement vector having at least a horizontal component between the position of the respective to-be-processed input box and the position of the cursor at the screen;
automatically moving, by the terminal, the form at the screen by the displacement vector to coincide an information inputting position at the respective to-be-processed input box with the position of the cursor at the screen without requiring receipt of an input on the screen;
receiving information input into the respective to-be-processed input box;
determining whether any other input box of the form is not normally processed; and
upon determining an input box of the form that is not normally processed, repeating each above step after the step of fixing a position of a cursor.
2. The method of claim 1, wherein the information is received through a soft keyboard.
3. The method of claim 2, wherein the screen is a touchscreen.
4. The method of claim 3, wherein the position of the cursor has a preset distance to the soft keyboard and on top of the soft keyboard.
5. The method of claim 1, wherein the to-be-processed input boxes being determined based on input boxes not having information input comprises determining an input box into which information has not been input as a to-be-processed input box.

6. The method of claim 1, wherein the to-be-processed input boxes being determined based on input boxes having information input comprises determining an input box whose input information does not match a corresponding information attribute of the input box as a to-be-processed input box.
7. The method of claim 1, wherein determining the respective to-be-processed input box of the multiple to-be-processed input boxes at the form comprises determining the respective to-be-processed input box from the multiple to-be processed input boxes at the form according to a sequence from top to bottom and from left to right in a same line of the form.
8. The method of claim 1, further comprising:
 - displaying the form to a user after the form has been completed;
 - receiving a trigger of the respective to-be-processed input box from a user that is input through the screen;
 - moving the form at the screen to coincide an information inputting position at the respective to-be-processed input box with the position of the cursor at the screen;
 - receiving information re-input by the user; and
 - using the re-input information to update the information that is already input into the respective to-be-processed input box.
9. The method of claim 1, further comprising:
 - submitting the form to a server;
 - receiving the form returned by the server after at least one input box of the form is determined to include incorrect input information;
 - moving the form at the screen to coincide an information inputting position of the respective to-be-processed input box that has the incorrect input information with the position of the cursor at the screen;
 - receiving re-input information; and
 - using the re-input information to update the incorrect input information that is already input into the respective to-be-processed input box.
10. A terminal comprising:
 - one or more processors; and

one or more computer-readable media stored thereon computer-executable instructions executable by the one or more processors to perform acts comprising:

fixing a position of a cursor at a screen of a terminal during a process of inputting information into multiple input boxes of a form;

determining multiple to-be-processed input boxes among the multiple input boxes of the form, the to-be-processed input boxes being determined based on each input box not having information input and based on the information input into each input box having information input;

applying a sequence to the multiple to-be-processed input boxes;

determining a respective to-be-processed input box of the multiple to-be-processed input boxes at the form according to the sequence of the multiple to-be-processed input boxes;

determining a displacement vector having at least a horizontal component between the position of the respective to-be-processed input box and the position of the cursor at the screen;

automatically moving, by the terminal, the form at the screen by the displacement vector to coincide an information inputting position at the respective to-be-processed input box with the position of the cursor at the screen after a preset period of time expires;

receiving information input into the respective to-be-processed input box;

determining whether any other input box of the form is not normally processed; and upon determining an input box of the form that is not normally processed, repeating each above step after the step of fixing a position of a cursor.

11. The terminal of claim 10, wherein the information is received through a soft keyboard.
12. The terminal of claim 10, wherein the screen is a touchscreen.
13. The terminal of claim 12, wherein the position has a preset distance to the soft keyboard and on top of the soft keyboard.

14. The terminal of claim 10, wherein the to-be-processed input boxes being determined based on input boxes not having information input comprises determining an input box into which information has not been input as a to-be-processed input box.
15. The terminal of claim 10, wherein the to-be-processed input boxes being determined based on input boxes having information input comprises determining an input box whose input information does not match a corresponding information attribute of the input box as a to-be-processed input box.
16. The terminal of claim 10, wherein determining multiple to-be-processed input boxes among the multiple input boxes of the form comprises determining the respective to-be-processed input box from the multiple to-be processed input boxes at the form according to a sequence from top to bottom and from left to right in a same line of the form.
17. The terminal of claim 10, wherein the acts further comprise:
displaying the form to a user after the form has been completed; and
moving the form at the screen to coincide an information inputting position at the respective to-be-processed input box with the position of the cursor at the screen after receiving a trigger of the respective to-be-processed input box from a user that is input through the screen; and
using the re-input information to update the information that is already input into the respective to-be-processed input box after receiving information re-input by the user.
18. The terminal of claim 10, wherein the operations further comprise:
submitting the form to a server;
moving the form at the screen to coincide an information inputting position of the respective to-be-processed input box that has the incorrect input information with the position of the cursor at the screen after receiving the form returned by the server after at least one input box of the form is determined to include incorrect input information; and
using the re-input information to update the incorrect input information that is already input into the respective to-be-processed input box after receiving re-input information.

19. One or more computer-readable media stored thereon computer-executable instructions executable by one or more processors to perform operations comprising:
- determining multiple to-be-processed input boxes among the multiple input boxes of a form, the to-be-processed input boxes being determined based on each input box not having information input and based on the information input into each input box having information input;
 - applying a sequence to the multiple to-be-processed input boxes;
 - fixing a position of a cursor at a screen of a terminal from when a first-information is input into a first to-be-processed input box at the form to a second time when second information is input into a second to-be-processed input box at the form;
 - determining whether the first information has been finished inputting into the to-be-processed input box;
 - determining whether any other input box of the form is not normally processed;
 - upon determining an input box of the form that is not normally processed:
 - determining a to-be-processed input box subsequent to the first to-be-processed input box in the sequence as the second to-be-processed input box;
 - determining a displacement vector having at least a horizontal component between the position of the respective to-be-processed input box and the position of the cursor at the screen;
 - automatically moving, by the terminal, the form at the screen by the displacement vector to coincide an information inputting position at the second to-be-processed input box with the position of the cursor at the screen in response to determining that the first information has been inputted into the to-be-processed input box; and
 - repeating each above step.
20. The one or more computer-readable media of claim 19, wherein:
- the screen is a touchscreen; and
 - the operations further comprise:
 - receiving information through a soft keyboard; and
 - inputting the information into the second to-be-processed input box.