

[0166] In particular embodiments handheld device **10** may comprise a digital watch utilizing motion input for at least some of the functions described herein. For example, digital watches with motion input capabilities may use motion input to flatten menus as discussed above. In some embodiments, the tapping of the watch or particular gestures may be used to silence the watch. Other functions may also be accessed through taps, rotations, translations and other more complex gestures. These functions may include changing time zones, setting the watch (e.g., setting the time and other adjustable settings), changing modes (e.g., timers, alarms, stopwatch), activating the backlight, using a stopwatch (e.g., starting, stopping and splitting the stopwatch) and starting and stopping other timers.

[0167] In some embodiments, motion detection may be separate from a display. For example, a display may be worn on glasses or contacts, and other parts of the handheld device may be dispersed across a user's body such that the display may not be part of the same physically component as the motion input device or component.

[0168] As discussed above, particular figures illustrate various methods, flowcharts and processes which may be performed in particular embodiments. It should be understood that steps may be performed in any order, and steps from a particular method, flowchart or process may be combined with other methods, flowcharts or processes or other steps from the same method, flowchart or process in various embodiments without departing from the scope of the invention.

[0169] Although the present invention has been described in detail with reference to particular embodiments, it should be understood that various other changes, substitutions, and alterations may be made hereto without departing from the spirit and scope of the present invention. For example, although the present invention has been described with reference to a number of elements included within handheld device **10**, these elements may be combined, rearranged or positioned in order to accommodate particular architectures or needs. In addition, any of these elements may be provided as separate external elements to each other where appropriate. The present invention contemplates great flexibility in the arrangement of these elements as well as their internal components.

[0170] Numerous other changes, substitutions, variations, alterations and modifications may be ascertained by those skilled in the art and it is intended that the present invention encompass all such changes, substitutions, variations, alterations and modifications as falling within the spirit and scope of the appended claims.

What is claimed is:

1. A motion controlled handheld device comprising:
 - a display having a viewable surface and operable to generate an image;
 - a gesture database maintaining a plurality of gestures, each gesture defined by a motion of the device with respect to a first position of the device, the gestures comprising symbol gestures each corresponding to a character from a preexisting character set;
 - an application database maintaining at least one application;

- a gesture mapping database comprising a gesture input map for the application, the gesture input map comprising mappings of the symbol gestures to corresponding inputs for the application;

- a motion detection module operable to detect motion of the handheld device within three dimensions and to identify components of the motion in relation to the viewable surface; and

- a control module operable to load the application, to track movement of the handheld device using the motion detection module, to compare the tracked movement against the symbol gestures to identify a matching symbol gesture, to identify, using the gesture input map, the corresponding input mapped to the matching symbol gesture, and to provide the corresponding input to the application.

2. The motion controlled handheld device of claim 1, wherein the preexisting character set comprises a written character set.

3. The motion controlled handheld device of claim 2, wherein the written character set comprises alphanumeric characters.

4. The motion controlled handheld device of claim 2, wherein the written character set comprises pictographic characters.

5. The motion controlled handheld device of claim 1, wherein a set of the inputs map to commands of the application.

6. The motion controlled handheld device of claim 5, wherein the symbol gestures are logically associated with names of the commands.

7. The motion controlled handheld device of claim 1, wherein each symbol gesture is defined by a single continuous sequence of accelerations defined with respect to the first position.

8. The motion controlled handheld device of claim 1, further comprising:

- a first accelerometer operable to detect acceleration along a first axis;

- a second accelerometer operable to detect acceleration along a second axis, the second axis perpendicular to the first axis; and

- a third accelerometer operable to detect acceleration along a third axis, the third axis perpendicular to the first axis and perpendicular to the second axis; and

wherein:

- the gesture database further defines each of the gestures using a sequence of accelerations;

- the motion detection module is further operable to detect motion of the device using accelerations measured by the first accelerometer, the second accelerometer, and the third accelerometer; and

- the control module is further operable to match the accelerations measured by the motion detection module against gesture definitions in the gesture database to identify particular ones of the gestures.