set to make no noise, because Bob is in a theater. While Bob is watching the movie, Bob's mobile phone vibrates with the second haptic effect mentioned above. Bob chooses to ignore the call, because he does not wish to speak with his supervisor at a movie theater. Later, Bob's mobile phone vibrates with the first haptic effect. Bob wants to speak with Alice, for example, to make plans to meet later. So Bob answers the phone and quickly exits the theater to talk with Alice.

[0060] Bob's mobile phone can also include a personal schedule/calendar application. After speaking with Alice, Bob can enter an entry in the calendar at the 7:00 PM time mark—"Meet Alice". Bob can also choose a fourth haptic effect to associate with the calendar entry. The mobile phone can be programmed to output the fourth haptic effect fifteen minutes before the time entry of the calendar (i.e., at 6:45 PM).

[0061] Bob's mobile phone can be equipped with GPS capability, along with an associated application program for location determination. Bob can also store addresses of various locations of interest in the application program. In one embodiment, Bob can be on the road. Bob's mobile phone vibrates with a distinct fifth haptic effect. Bob recognizes the fifth haptic effect being associated with the haptic logo of his favorite electronics store. He then checks with the application program, and receives a sixth haptic effect associated with the distance between his current position and the store location. Bob then decides to make a stop at the store.

[0062] A haptically-enabled handheld communication device of the invention may be further used as a two-way haptic remote control, for example, for controlling a remote system such as a Television set or a multimedia system. In one embodiment, the events as referred to above may be related to program channels shown on the remote system, each identified by a channel number (which may be used as the "source"), for instance. The corresponding haptic effects may be customized on a per-channel basis. Such haptic effects can serve to inform a user as to which channel is on, as a user is channel-surfing by way of this haptic remote control, so that the user need not to look up the display screen.

[0063] **FIG. 9** depicts a flowchart illustrating a method for providing haptic effects to a remote control in one embodiment of the present invention. In the embodiment shown, the remote control sends a command signal to a remote system at step **910**. As with a conventional remote control, the signal may or may not reach the television. The remote control then determines whether a feedback signal has been received at step **920**. If the remote control receives a feedback signal, the remote control provides a first haptic effect at step **930**. If not, the remote control provides a second haptic effect at step **940**.

[0064] The first haptic effect can be further customized according to the received feedback signal. In one embodiment, the remote system provides information (e.g., via the feedback signal) to the remote control regarding the state of the display, e.g., based on a predetermined scheme. The remote control may use the information to determine a corresponding haptic effect to provide at step **930**. In alternative embodiments, the remote system may determine the appropriate haptic effect to provide and include a corresponding haptic code in the feedback signal. The remote control provides the haptic effect at step **930** based on this haptic code.

[0065] The foregoing description of the preferred embodiments of the invention has been presented only for the purpose of illustration and description and is not intended to be exhaustive or to limit the invention to the precise forms disclosed. Numerous modifications and adaptations thereof will be apparent to those skilled in the art without departing from the spirit and scope of the present invention.

That which is claimed is:

1. A method, comprising:

receiving an input signal associated with an actuation of a user-interface member;

determining a haptic code associated with the actuation; and

including the haptic code in an output signal.

2. The method of claim 1 further comprising sending the output signal to a remote handheld communication device.

3. The method of claim 1 further comprising including in the output signal at least one of a message, a video image, and a graphical feature.

4. The method of claim 1 further comprising making the determination is based on a predetermined scheme.

5. The method of claim 1 wherein the user-interface member includes at least one of a key, a button, a key pad, a direction pad, a touch screen, a scroll wheel, a mini-joystick, a trackball, and a knob.

6. A method, comprising:

receiving an input signal;

outputting a request relating to a contact with a user-interface member coupled to a handheld communication device; and

providing a control signal associated with the contact to an actuator coupled to the handheld communication device, the control signal configured to cause the actuator to output a haptic effect associated with the input signal.

7. The method of claim 6 further comprising extracting a haptic code from the input signal, the control signal being based at least in part on the haptic code.

8. The method of claim 6 further comprising causing a content of the input signal to be displayed, the content includes at least one of a message, a video image, and a graphical feature.

9. The method of claim 6 wherein the user-interface member includes one of a key, a button, a key pad, a direction pad, a touch screen, a scroll wheel, a mini-joystick, a trackball, and a knob.

10. A computer-readable medium on which is encoded program code, comprising:

program code for receiving an input signal associated with an actuation of a user-interface member;

program code for determining a haptic code associated with the actuation; and

program code for including the haptic code in an output signal.