

more aligned screen panels **420** which may be capable of being pushed by a user. The screen panels **420** may be closely aligned and may be capable of providing a display which may appear continuous and uniform. Screen panels **420** may correspond to one or more buttons **430**. One or more of the screen panels **420** may be capable of receding when pushed by a user and may thus provide confirmation of the user's selection. Additionally, one or more screen panels **420** may be capable of being raised or lowered so that they may be arranged in a staggered height which is perceptible to the user's touch. For example, alternating screen panels **420** may be raised or lowered to differentiate controls to a user's touch, a center panel may be raised or lowered, two adjacent screen panels **420** may be raised or lowered to indicate an up or down button on a setting, or other arrangements may be provided to give a tactile indication of the available functionality.

[0027] Screen panels **420** may contain one or more displays on the surface of a screen panel. For example, screen panels **420** may contain organic light emitting diode displays or other light emitting diode displays. Screen panels **420** may be liquid crystal displays or other suitable display technologies. Screen panels **420** may contain a transparent, scratch resistant layer on top which may protect a screen panel and may be composed of a clear, scratch resistant polymer or other material. The displays may show an individual display or they may show a portion of a larger display which may be shown by display **410**. The screen panels **420** may be connected to a central controller which may provide for the synchronized display of a uniform image on display **410**.

[0028] Screen panels **420** may be a top portion of one or more buttons **430**. They may be functionally connected via one or more actuators to one or more buttons **430**. Buttons **430** may recess when pressed by a user which may provide haptic feedback indicating that a button has been pressed. In some embodiments, visual and audio indicators may provide feedback to a user that a button has been pressed. For example, a click or other sound may be provided when a button is pressed. This may be provided by an actuator or the button operatively coupled to one or more screen panels **420**. Display **410** may provide visual confirmation that a selection has been made.

[0029] FIG. 5 is a haptic computer interface, according to an exemplary embodiment. Display **510** may contain one or more buttons. Buttons may be created dynamically by one or more actuators which may raise a surface of the display **510**. Button contact points **520** may be raised independently by one or more actuators to form one or more raised surfaces on display **510**. Button contact points **520** may be operatively coupled to one or more switches which may accept input when one or more button contact points **520** are pressed by a user. In one or more embodiments, button contact points may be raised to provide tactile feedback to a user of display **510**. Display **510** may contain a touch screen which may accept user input. Button contact points **520** may represent a single input or may represent multiple inputs. For example, one or more controllers may be connected to one or more switches operatively coupled to button contact points **520**. The one or more controllers may accept input from switches connected to button contact points **520** as if they represent input from a single button. The one or more controllers may also accept input from switches connected to button contact points **520** as individual input and may interpret input to indicate a selection specific to an area represented by individual button contact points **520**. For example, pressing in one area of display **510**

may represent a middle level setting on a range, pressing higher on display **510** may push different button contact points **520** and may represent a higher setting on a range.

[0030] Multiple button shapes may be presented in a single interface to provide a tactile guide as to the functionality of the button. For example, a play button on the interface of a digital media player may be larger or may be of a different shape than a rewind or fast forward control button. Returning to FIG. 5, the shapes may be presented by one or more controllers activating one or more actuators to raise one or more button contact points **520**. Stop button **530** may represent a stop button on a digital media player and the circular shape may provide haptic feedback enabling a user to stop the play of audio files without looking at the display to locate the stop button. Stop button **530** may be presented by one or more controllers which may signal actuators to raise button contact points **520** in a circular pattern. Play button **540** may represent a play button and the rectangular shape may provide haptic feedback enabling a user to easily locate the button and differentiate the functionality of the button from other buttons. Rewind button **550** may represent a rewind button and may provide yet another shape whose shape may represent a common symbol for the corresponding functionality of rewinding media. In this case, the double left pointing arrows may already be associated by a user with rewind functionality. Fast Forward button **560** may represent a fast forward button and may correspond to functionality fast forwarding media. First setting button **570** and second setting button **580** may represent controls which correspond to a settings with a range of permissible values for a particular user interface. For example, first setting button **570** and second setting **580** may correspond to the volume settings for a left and right speaker, bass and treble settings, video contrast and brightness or other settings. Pressing one end of button first setting **570** or second setting **580** may lower the setting, pressing in a middle portion may place the setting at a medium level, pressing at the other end of first setting button **570** or second setting **580** may raise the setting. Button contact points **520** throughout first setting button **570** and second setting **580** may accept input individually so that only that portion of the raised display **510** touched by a user recesses. The setting represented by first setting button **570** or second setting **580** may be adjusted within its range according to the portion of first setting button **570** or second setting **580** which is pressed. In addition to ranges, which portion of a button pressed may indicate direction, the desired portion of a spectrum, a desired frequency or other inputs which may be indicated by a variance of the selection position.

[0031] One or more buttons may be labeled by display **510**. Display **510** may label buttons with indicia corresponding to functionality of a button or corresponding to a current setting value of the button. For example, display **510** may indicate that first setting button **570** is currently set to a volume of five on a range of 1-10 for a left speaker while second setting button **580** is set to eight on a range of 1-10 for a right speaker. Labels on one or more buttons of display **510** may enable a user to learn new interfaces until they gain familiarity with the haptic feedback provided by the interface. Buttons may present raised surfaces and may be unlabeled allowing for a uniform display to be presented across all of display **510** including the raised surfaces of one or more buttons.

[0032] In the preceding specification, various preferred embodiments have been described with reference to the accompanying drawings. It will, however, be evident that