

a raised button. The user device may display a particular color or pattern, or other graphic on the region of the display corresponding to the particular raised button. In some embodiments, the user device may shade a portion of the surrounding display to further distinguish the raised feature.

[0139] Any of the steps of flow diagram **2300** may be rearranged, omitted, appended, or otherwise modified without departing from the present disclosure. In some embodiments, a display screen may be contoured without displaying a graphic prior to contouring. For example, in some embodiments, steps **2302** and **2304** may be reversed. A display screen may contoured be activating one or more shape change elements, and a graphic may then be displayed on the contoured display screen. In a further example, step **2302** may be omitted, and only steps **2304** and **2306** may be performed (e.g., a graphic is modified prior to display on a contoured display screen). The disclosed haptic system may apply any suitable image processing techniques or combination of techniques to adapt the displayed graphic to the display screen.

[0140] It will be understood that various directional and orientational terms such as “horizontal” and “vertical,” “top” and “bottom” and “side,” “length” and “width” and “height” and “thickness,” “inner” and “outer,” “internal” and “external,” and the like are used herein only for convenience, and that no fixed or absolute directional or orientational limitations are intended by the use of these words. For example, the components and elements of this disclosure may have any desired orientation. If reoriented, different directional or orientational terms may need to be used in their description, but that will not alter their fundamental nature as within the scope and spirit of this disclosure.

[0141] It will also be understood that the previously discussed embodiments and examples are only illustrative of aspects of the disclosed haptic systems, and are not presented for purposes of limitation. It will be understood that various tactile feedback techniques may be made available to the user and examples included herein are solely for convenience. Those skilled in the art will appreciate that the disclosed haptic systems may be practiced by other than the described embodiments, and the disclosure is limited only by the claims that follow.

What is claimed is:

1. A haptic control system comprising:
 - a substantially rigid substrate;
 - an elastic screen sheet substantially parallel to the rigid substrate;
 - a first plurality of shape change elements arranged in a first single layer array substantially parallel to and between the substrate and the elastic screen sheet;
 - a second plurality of shape change elements arranged in a second single layer array substantially parallel to the first single layer array, wherein the second array is between the first single layer array and the elastic screen sheet; and
 - control circuitry coupled to the first single layer array and the second single layer array.
2. The system of claim 1, wherein the elastic screen sheet is a display.
3. The system of claim 1, wherein the elastic screen sheet comprises a flexible organic light emitting diode display sheet.
4. The system of claim 1, wherein the elastic screen sheet comprises at least one control lead, wherein the at least one control lead is coupled to at least one shape change element.

5. The system of claim 1, further comprising:
 - an intermediate elastic sheet substantially parallel to the rigid substrate, wherein the intermediate elastic sheet is positioned between the first single layer array and the second single layer array.
6. The system of claim 5, wherein the first single layer array and the second single layer array are rigidly affixed to the intermediate elastic sheet.
7. The system of claim 1, wherein at least one of the plurality of shape change elements of the first single layer array are rigidly affixed to at least one of the shape change elements of the second single layer array.
8. The system of claim 1, wherein the first plurality of shape change elements are of a first size and the second plurality of shape change elements are of a second size.
9. The system of claim 1, wherein the first plurality of shape change elements and the second plurality of shape change elements are of substantially the same size.
10. The system of claim 1, wherein at least one of the first plurality of shape change elements and the second plurality of shape change elements comprises a piezoelectric element.
11. The system of claim 1, wherein at least one of the first plurality of shape change elements and the second plurality of shape change elements comprises a shape memory polymer.
12. A haptic control system comprising:
 - an elastic screen sheet, wherein the elastic screen sheet is substantially flat on one surface and contains a plurality of sunken reliefs on the opposite surface;
 - a substantially rigid substrate substantially parallel to the elastic screen sheet;
 - a plurality of shape change elements arranged in the sunken reliefs, wherein the shape change elements are positioned between the elastic screen sheet and the substrate; and
 - control circuitry coupled to the plurality of shape change elements.
13. The system of claim 12, wherein the elastic screen sheet is a display.
14. The system of claim 12, wherein at least one of the plurality of shape change elements comprises piezoelectric element.
15. The system of claim 12, wherein at least one of the shape change elements of the plurality of shape change elements is of a different size than at least one other shape change element of the plurality of shape change elements.
16. A method for providing haptic feedback using a haptic system that comprises a stack of first and second layers of arrays of shape change elements, and an elastic screen sheet positioned above the at least two layers in the stack, the method comprising:
 - identifying a first shape change element of the first layer and a second shape change element of the second layer to be changed;
 - determining a first change to be made to a characteristic of the first shape change element and a second change to be made to a characteristic of the second shape change element; and
 - causing a first control signal to be applied to the first shape change element and a second control signal to be applied to the second shape change element the first control signal and the second control signal corresponding to the first change and the second change, respectively.
17. The method of claim 16, further comprising:
 - displaying content on the surface of the elastic screen sheet opposite the layers of arrays.