

said matrix includes two-stage pin retention having a temporary retention for holding said pins temporarily in place as said pins are being moved by said actuating means and a locking for maintaining establishment of pin positions without continued influence by said actuating means as a user senses the tactile display.

15. A method for extended refreshable tactile graphic display comprising the steps of:

maintaining an array of at least hundreds of movable pins at a display surface;

using a single actuator to move multiple said pins in said array between at least first and second positions;

continuing to move said pins until a desired configuration is attained at said display surface;

retaining pins in a position when moved without continued influence from said actuator; and

moving said pins when desired to attain a different configuration at said display surface.

16. The method of claim 15 wherein the step of retaining moved pins in a position includes the steps of holding said pins temporarily in place as selected said pins in said array are being moved and maintaining establishment of pin positions as a user senses the tactile display, and wherein the step of moving said pins when desired to attain a different configuration at said display surface includes the step of releasing said pin positions to allow reconfiguration of the display.

17. The method of claim 15 wherein the steps of moving pins include moving said pins to a selected one of plural pin extension positions relative to said display surface to provide a tactile graphic relief display.

18. The method of claim 15 further comprising the step of making a copy of said desired configuration using a thermal sheet at said display surface.

19. The method of claim 15 wherein said steps are computer controlled and further comprise the steps of:

receiving a user issued command for the display of a tactile graphic image;

conversion of a selected graphical image to a format suitable for graphic display;

determining that said pins are ready to be moved;

if a tactile display is already set at said display surface, moving said pins to a default position after receiving said user issued command; and

when signaled by the user, receiving another user issued command for display of a new tactile graphic image.

20. The method of claim 15 further comprising configuring said array of pins at said display surface for display of one of high resolution graphic images, standard or near-standard dimension Braille text, or a combination thereof.

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