

gers for a second or two. Once resting, fingers can be lifted and tapped or impulsively pressed on the surface to generate key symbols without having to lift other resting fingers. Typematic is initiated either by impulsively pressing and maintaining distinguishable force on a key, or by holding a finger on a key while other fingers on the hand are lifted. Glancing motions of single fingers as they tap key regions are easily tolerated since most cursor manipulation must be initiated by synchronized slides of two or more fingers.

[0295] Other embodiments of the invention will be apparent to those skilled in the art from consideration of the specification and practice of the invention disclosed herein. It is intended that the specification and examples be considered as exemplary only, with a true scope and spirit of the invention being indicated by the following claims.

What is claimed is:

1. A method for segmenting hand contacts in a sequence of proximity images, the method comprising:
creating a smoothed copy of the most recent proximity image;

locating one or more locally maximum pixels in the smoothed proximity image; and searching outward from each local maximum pixel for corresponding contact boundary pixels using boundary tests that depend on one or more expected contact properties.

2. The method of claim 1 further comprising forming groups from those pixels surrounding each local maximum pixel up to and including the corresponding contact boundary pixels.

3. The method of claim 2 further comprising combining groups of pixels that partially overlap.

4. The method of claim 2 further comprising extracting group positions and features by fitting an ellipse to each group of pixels.

5. The method of claim 3 further comprising extracting group positions and features by fitting an ellipse to each group of pixels.

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