

# **EXHIBIT 1**



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# United States Patent [19]

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Bisset et al.

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[54] **MULTIPLE FINGERS CONTACT SENSING METHOD FOR EMULATING MOUSE BUTTONS AND MOUSE OPERATIONS ON A TOUCH SENSOR PAD**

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### Related U.S. Application Data

[63] Continuation of Ser. No. 582,768, Jan. 4, 1996, abandoned.

[51] Int. Cl.<sup>6</sup> ..... **G09G 5/00**; G09G 5/08

[52] U.S. Cl. .... **345/173**; 345/157

[58] Field of Search ..... 345/156, 157, 345/160, 173, 174, 145; 178/18; 341/33

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### [57] ABSTRACT

Method and apparatus for detecting an operative coupling between one or more fingers or other appropriate objects and a touch pad includes processes for detection of multiple maxima with intermediate minima in appropriate sequences to emulate the operations of cursor control and button actuations in a pointing and control device.

31 Claims, 17 Drawing Sheets

