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Venolia

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(54) **ZOOMING CONTROLLER**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 17 days.

This patent is subject to a terminal disclaimer.

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(57) **ABSTRACT**

A method and device for accessing a broad data field having a fine resolution. The user selects a scale which can be varied. The scale controls a range within the data field. By moving the range to encompass different portions of the data field, the user can scan that portion of the data field. The present invention allows the user to simultaneously select the scale while moving the range over different portions of the data field. Thus, the user can “zoom in” and “zoom out” of different portions of the data field.

In one embodiment of the present invention, a particular piece of data within the broad data field can be accessed. First, the scale is selectively varied, thereby controlling a range within the data field. Then, the range is moved to encompass portions of the data field in which the piece of data resides. Next, the scale is successively decreased while, simultaneously, points successively closer to the location are kept with the range. The scale is decreased (i.e., increasing the range’s resolution) and the range is moved in this manner until the piece of data is actually accessed.

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(65) **Prior Publication Data**

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Related U.S. Application Data

(63) Continuation of application No. 09/551,411, filed on Apr. 18, 2000, now Pat. No. 6,366,303, which is a continuation of application No. 08/104,251, filed on Aug. 9, 1993, now Pat. No. 6,061,062, which is a continuation of application No. 07/811,830, filed on Dec. 20, 1991, now abandoned.

(51) **Int. Cl.**⁷ **G06F 3/00**

(52) **U.S. Cl.** **345/856**

(58) **Field of Search** 345/184, 661, 345/667, 676, 684, 719, 720, 723, 730, 731, 856

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24 Claims, 10 Drawing Sheets

