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Steidlmayer et al.

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[54] **FINANCIAL DATA EVENT FLOW ANALYSIS SYSTEM WITH STUDY CONDUCTOR DISPLAY**

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[51] Int. Cl.⁶ **G06F 17/30**

[52] U.S. Cl. **395/600; 364/408; 364/224.2; 364/282.1; 364/225; 364/227.2; 364/918.8; 364/974; 364/DIG. 4; 364/DIG. 2; 395/141**

[58] Field of Search **395/600, 141; 364/408**

[56] References Cited

U.S. PATENT DOCUMENTS

3,296,597	1/1967	Scantlin et al. .
3,462,739	8/1969	Scantlin et al. .
3,493,956	2/1970	Andrews et al. .
3,559,207	1/1971	Atkinson .
3,573,732	4/1971	Greenblum et al. .
3,648,270	3/1972	Metz et al. .
3,651,511	3/1972	Andrews et al. .
3,656,148	4/1972	Belcher et al. .
3,739,222	6/1973	Hurd, III .
3,739,369	6/1973	Bunker et al. .
3,742,482	6/1973	Albrecht et al. .
3,792,462	2/1974	Casey et al. .
3,913,089	10/1975	Albrecht .
4,193,122	3/1980	Bowers .
4,307,393	12/1981	Hamada et al. .
4,473,824	9/1984	Claytor .
4,674,044	6/1987	Kalmus et al. .
4,847,785	7/1989	Stephens .

OTHER PUBLICATIONS

P. Kaufman, *The New Commodity Trading System and Methods* (1987, John Wiley & Sons, Inc.) at pp. 1-27, 54-90, 159-206.

N. Rothstein, *The Handbook of Financial Futures* (1984, McGraw-Hill Book Company) at pp. vii-xix, 333-372.

T. Meyers, *The Technical Analysis Course* (1989, Probus Publ. Co.).

The Signal Guide to Investment Software (1991, Data Broadcasting Corporation).

The Individual Investor's Guide to Computerized Investing (1992, The American Association of Individual Investors) at pp. 1-385.

(List continued on next page.)

Primary Examiner—Thomas G. Black

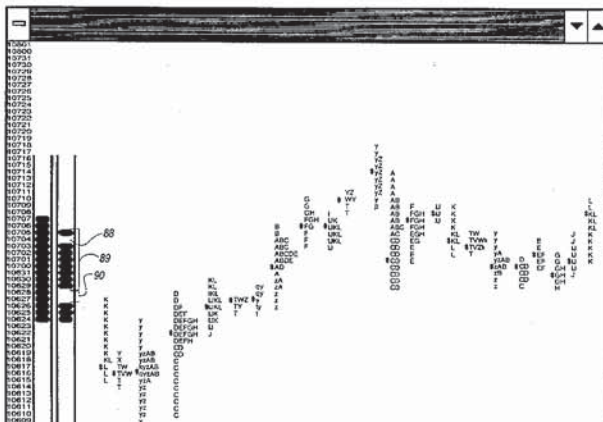
Assistant Examiner—Paul R. Lintz

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[57] ABSTRACT

A system for controlling and managing a continuous sequence of data by conducting studies on user-defined segments of the data, and displaying the study results in a concentrated summary form in vertical pipes on a single display screen. The system includes a data stream source, an interface between the data stream source and a personal computer or other stand-alone device, and means for constructing a database for the continuously developing data and displaying the data in a horizontal display, software and hardware to enable a user to conduct studies on the data so configured. The user designates a specific segment of displayed data, a specific study to be performed on that segment, and the study parameters, a color for each study result, and the position and color of a vertical summary pipe on the display screen. The study is performed and displayed in a concentrated summary form in the vertical pipe. A user may conduct multiple studies and display the study results in the same, or a different, vertical pipe on the same screen. Through the use of the vertical pipes for the display of study results, and the locating of space or color segment differences within a result or between such results, the system can be used flexibly to analyze, model, and summarize large quantities of data in a concentrated form on a single screen, thereby providing the user with important information about the studied data, giving the user modelling power and definitional control over the data, and enabling the user to draw analytical conclusions and make transaction decisions.

23 Claims, 44 Drawing Sheets



OTHER PUBLICATIONS

Wall Street Computer Review's *Special Buyer's Guide Issue for 1992* (Gralla Publications).

Edward R. Tufte, *Envisioning Information* (1990, Graphics Press).

Edward R. Tufte, *The Visual Display of Quantitative Information* (1983, Graphics Press).

J. Peter Steidlmayer, *New Market Discoveries* (1990, Kirbarn).

Capital Flow Software User Reference Manual, Version 2.0.

Barbara Robertson, "Biz Viz. (financial analysts are beginning to use visualization tools normally used by engineers)", *Computer Graphics World*, vol. v14, Issue: n9, Sep. 1991, pp. 45-49.

Clive Davidson, "Fast Money", *Computer Weekly*, Oct. 17, 1991, pp. 28-29.

Paul R. Lintz, *Examiner's Exhibit A*, Unpublished Output from *Microsoft Works* Aug. 14, 1994, pp. 1-2.

Microsoft Works User's Guide Version 1.05, Microsoft corporation 1987, 1988, pp. 257-335.

Rizzo et al., "Quotron Uses Windows to Develop New Market Analysis Tools For Real-Time Data", *Microsoft Systems Journal*, vol. V4, Issue: n1, Jan., 1989, pp. 1-9.

Ivy Schmerken, "Technical Charting Lights Up Securities Trading", *Wall Street Computer Review*, vol. v6, Issue: n9, Jun. 1989, pp. 42-52.

Janet Matthew, "OTC Spurs Specialized Trading Systems", *Wall Street Computer Review*, vol. v6, Issue: n12, Sep., 1989, pp. 26-32.

1990 Buyer's Guide: "Trading Systems", *Wall Street Computer Review*, vol. v7, Issue: n2, Nov., 1989, pp. 124-131.

FIG. 1-A

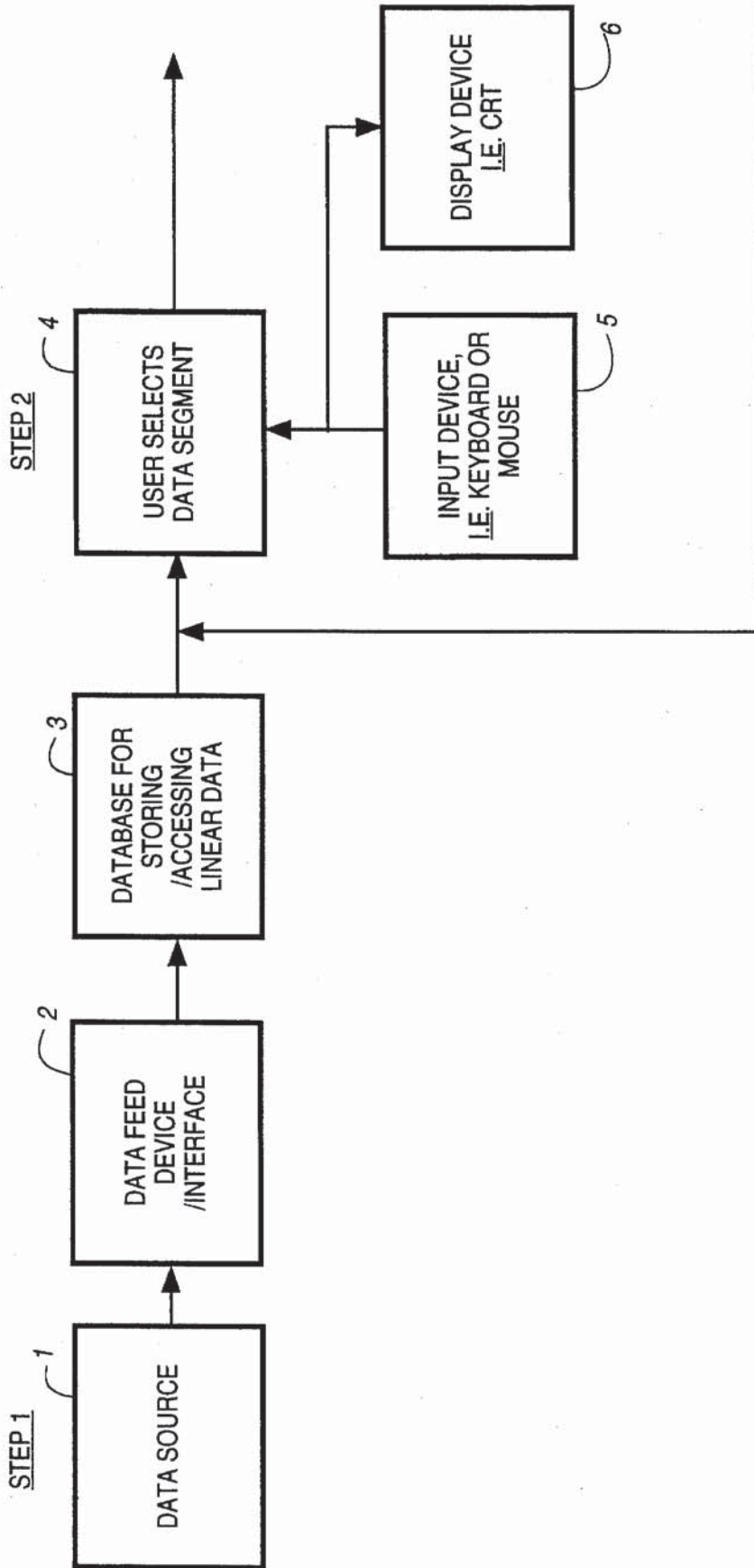


FIG. 1-B

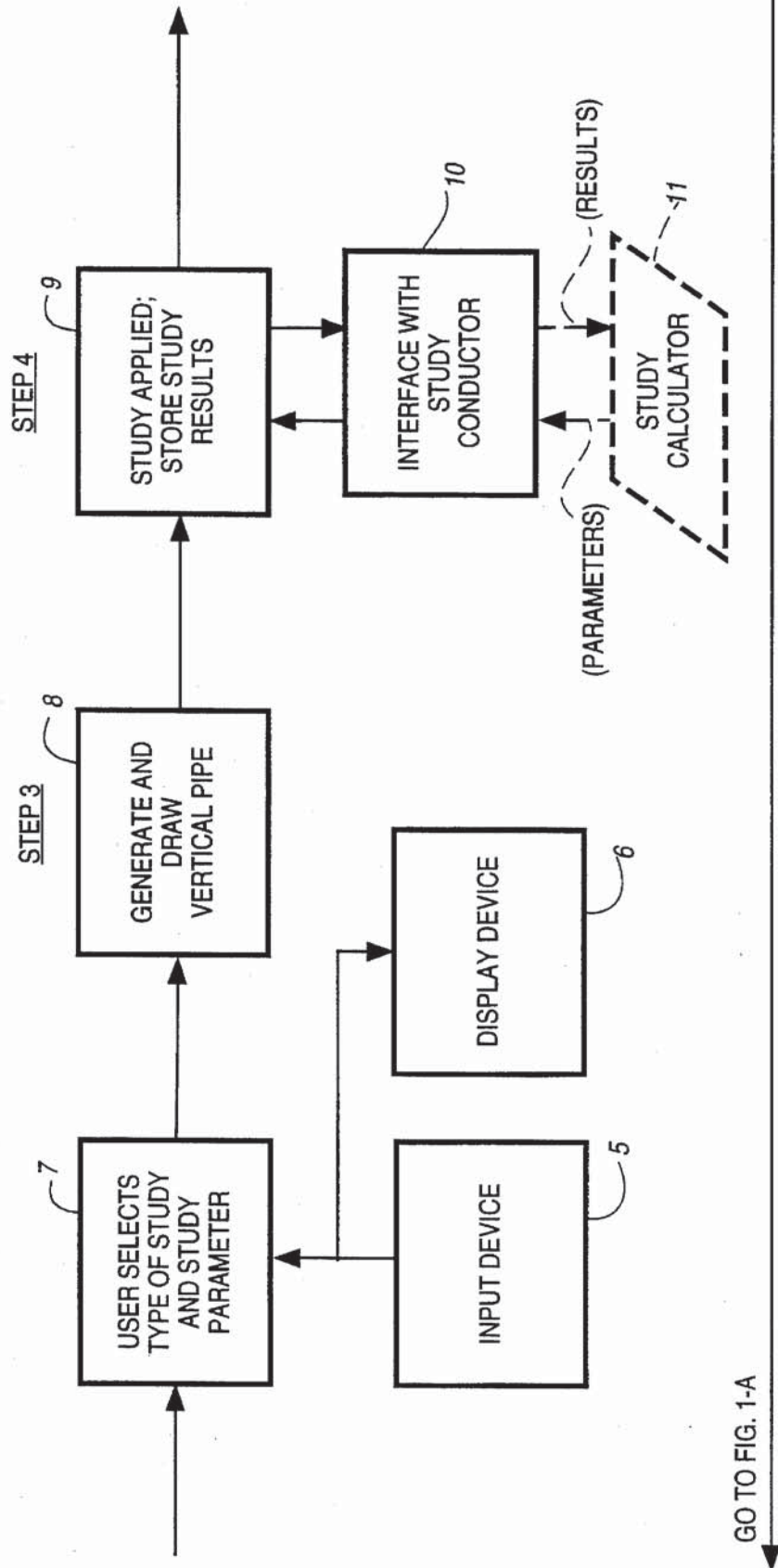
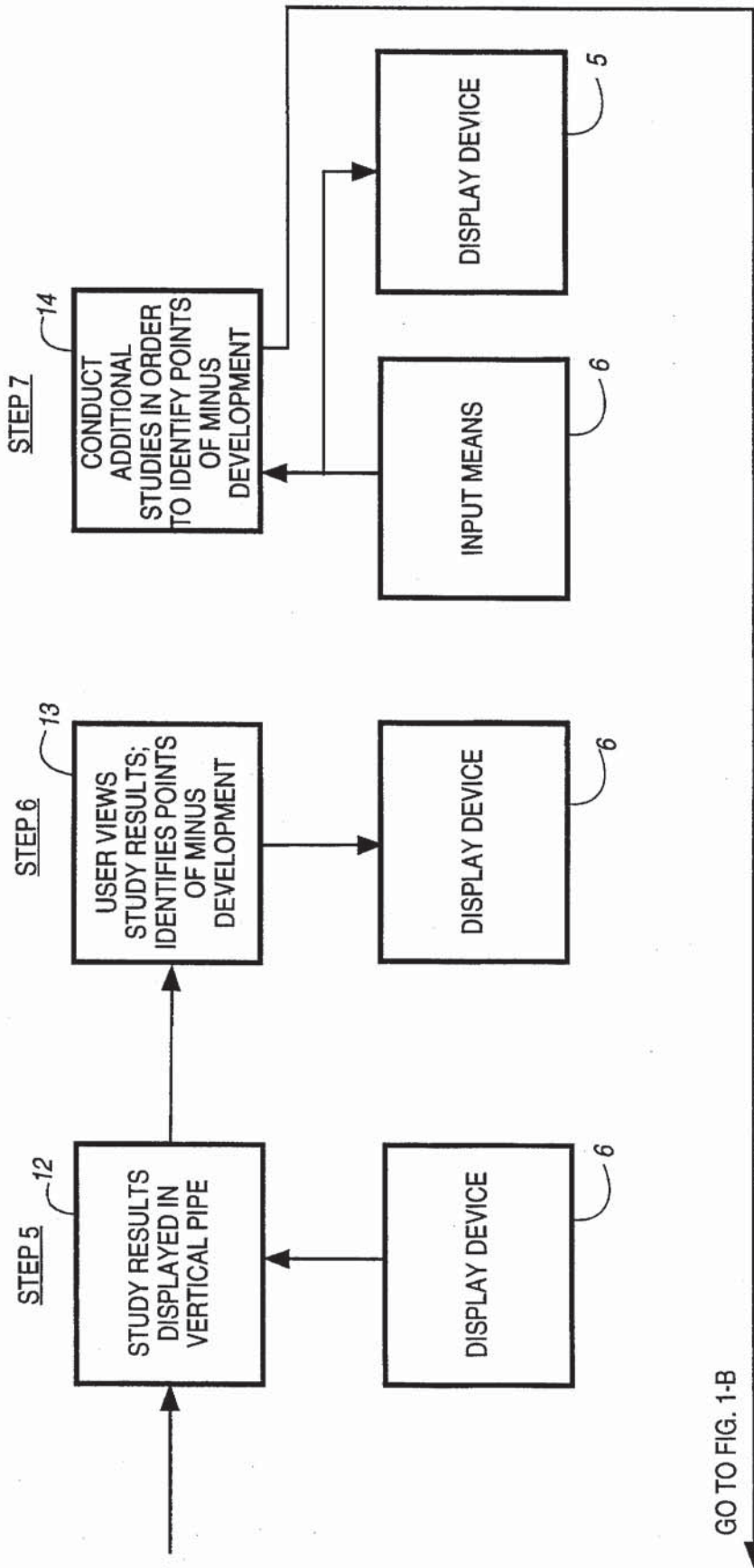


FIG. 1-C



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