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United States Patent [19]

Shah et al.

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[54] **METHOD AND APPARATUS FOR TRACKING VEHICLE LOCATION AND COMPUTER AIDED DISPATCH**

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5,155,689 10/1992 Wortham 364/460
 5,243,530 9/1993 Stanifer et al. 364/452
 5,272,638 12/1993 Martin et al. 364/444
 5,334,974 8/1994 Simms et al. 340/990
 5,428,546 6/1995 Shah et al. 364/449
 5,487,139 1/1996 Saylor et al. 395/135

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Sunnyvale, Calif.

OTHER PUBLICATIONS

Allen, David P., "Here Be Dragons . . .," *CD-ROM EndUser*, Mar. 1990.
 Sena, Michael L., "Computer-Aided Dispatching," *Computer Graphics World*, PennWell (publ.), May 1990.

[21] Appl. No.: **443,062**
 [22] Filed: **May 17, 1995**

Primary Examiner—Michael Zanelli
Attorney, Agent, or Firm—Townsend and Townsend and Crew LLP

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 961,736, Oct. 16, 1992, Pat. No. 5,428,546.
 [51] Int. Cl.⁶ **G08G 1/13; G01S 7/10; G06F 17/60**
 [52] U.S. Cl. **364/449.1; 364/400; 340/990**
 [58] Field of Search 364/449, 460, 364/400, 401 R; 340/990, 995, 991; 342/357, 457; 395/153, 600

[57] ABSTRACT

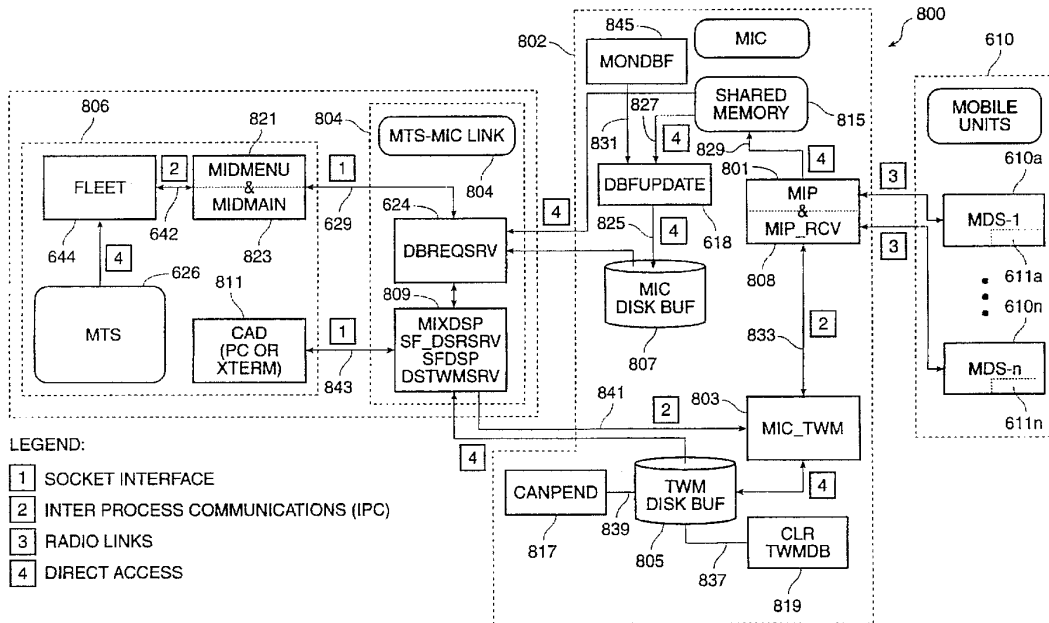
A computer aided dispatch apparatus including a first memory portion, a second memory portion, and a third memory portion. The computer aided dispatch apparatus also includes a display **510, 626** with a first display segment **530**. The first display segment includes a digitized representation of a selected geographical area **530**, street data, and a user locatable mark **520**. The user locatable mark **520** defines a mobile unit position for a mobile unit based upon a first value and a second value. The computer aided dispatch apparatus includes a dispatch system **811** operably coupled to the display **510, 626**. The dispatch system includes order data from customers. A portion of the order data is transferred from a data acquisition device **801, 808** to the mobile unit **610**.

[56] References Cited

U.S. PATENT DOCUMENTS

4,660,037 4/1987 Nakamura et al. 340/990
 4,924,402 5/1990 Ando et al. 364/449
 4,954,959 9/1990 Moroto et al. 364/449
 5,003,317 3/1991 Gray et al. 342/457
 5,067,081 11/1991 Person 364/444
 5,140,532 8/1992 Beckwith, Jr. et al. 395/101

20 Claims, 10 Drawing Sheets



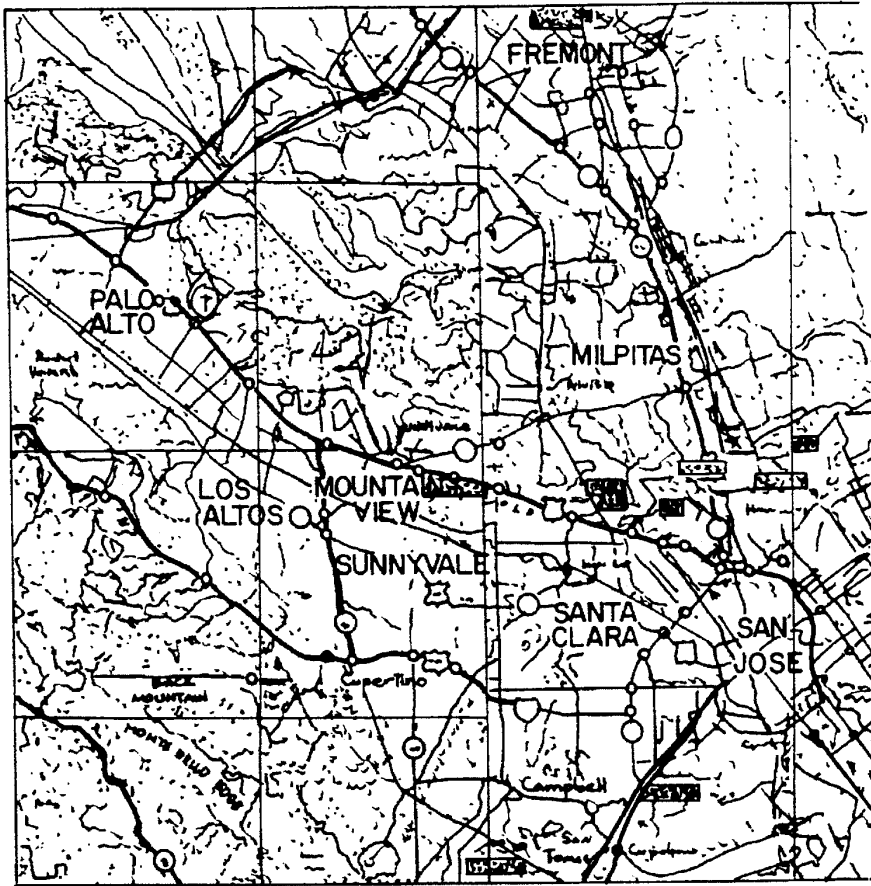


FIG. 1. PRIOR ART

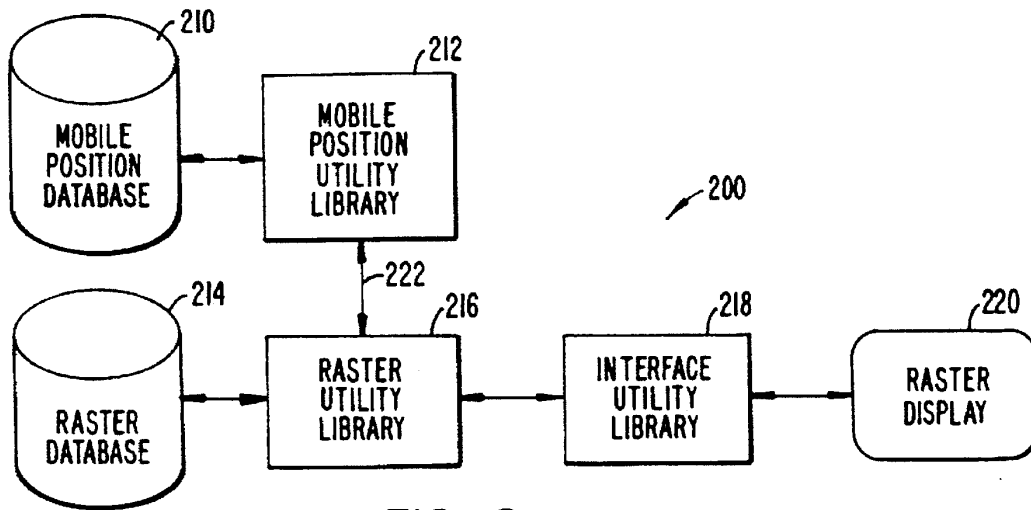


FIG. 2. PRIOR ART

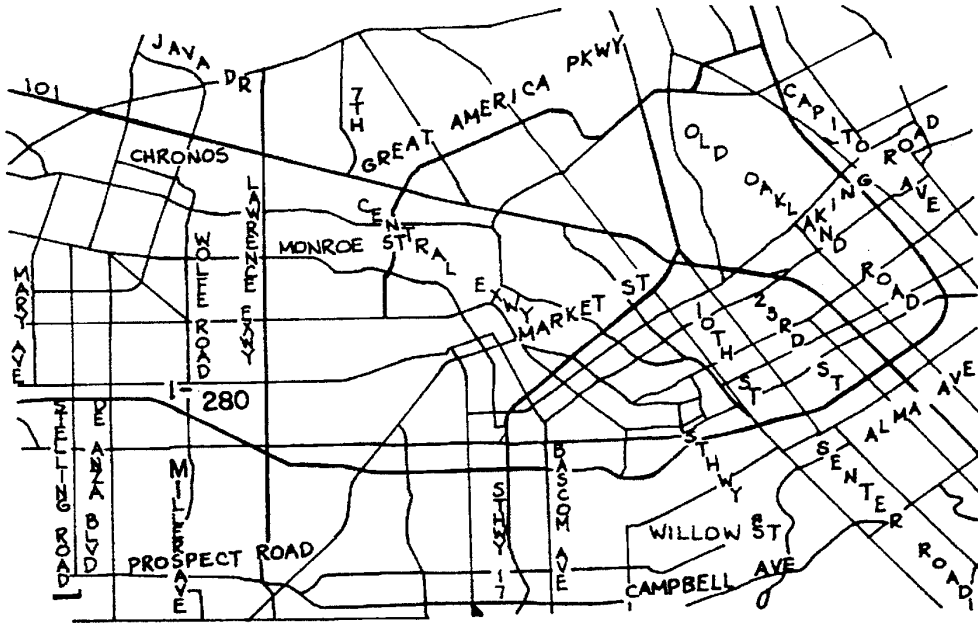


FIG. 3. PRIOR ART

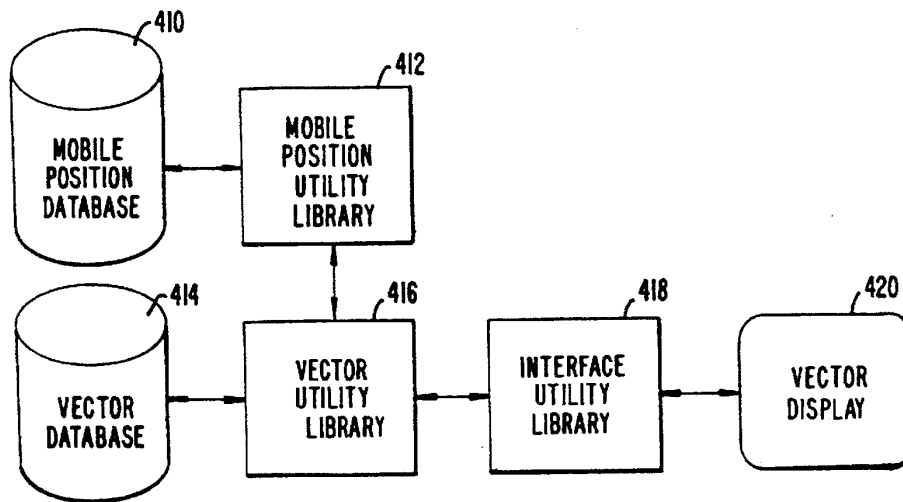


FIG. 4. PRIOR ART

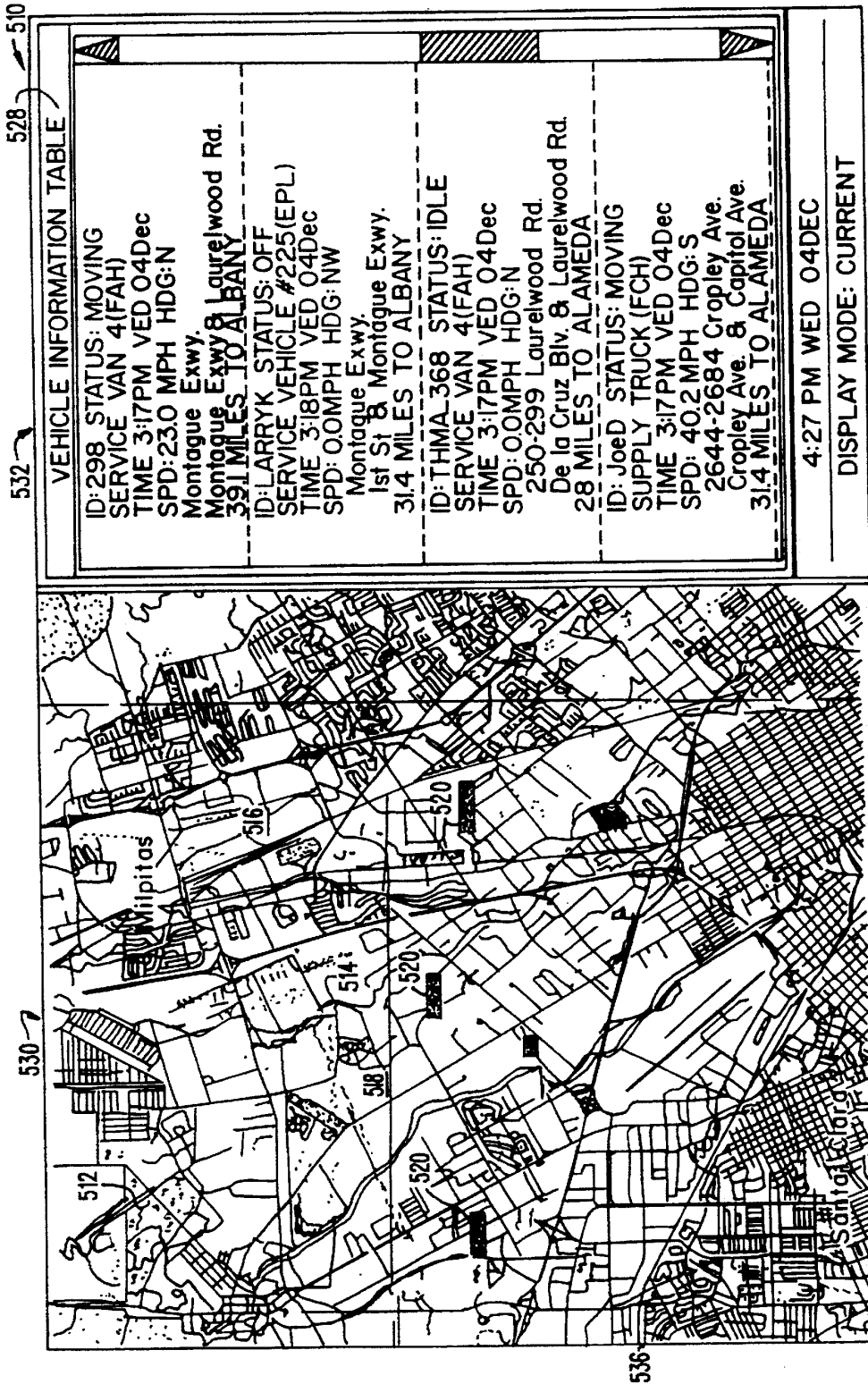


FIG. 5.

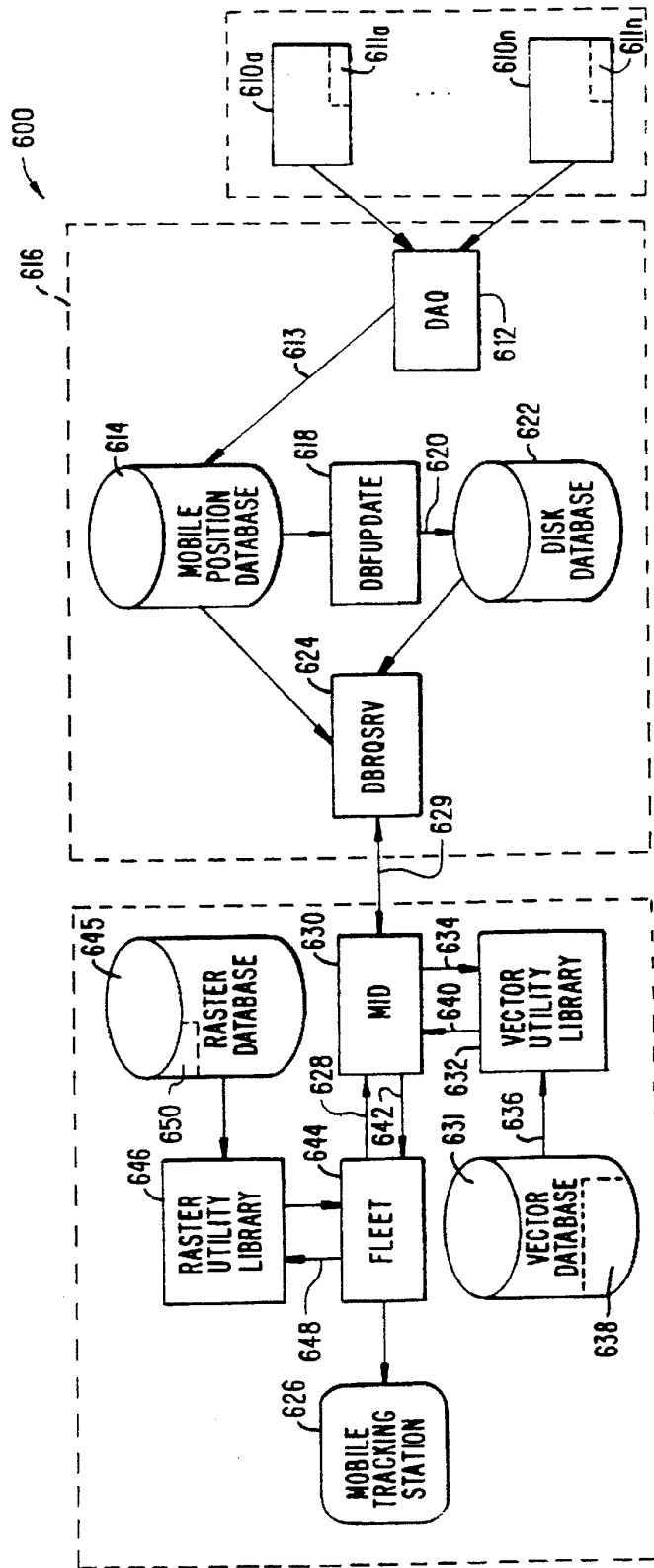


FIG. 6.

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