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**United States Patent** [19][11] **Patent Number:** **5,675,831****Caputo**[45] **Date of Patent:** **Oct. 7, 1997**

[54] **METHOD FOR AUTOMATIC  
INSTALLATION OF A MODEM WHEREIN  
UNIQUE IDENTIFICATION FOR THE  
DEVICE REGISTRY IS COMPUTED FROM  
MODEM RESPONSES TO QUERIES BY THE  
SYSTEM**

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[73] **Assignee:** **Microsoft Corporation**, Redmond,  
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#### Related U.S. Application Data

[63] Continuation of Ser. No. 356,059, Dec. 13, 1994.

[51] **Int. Cl.<sup>6</sup>** ..... **G06F 9/00; G06F 13/10**

[52] **U.S. Cl.** ..... **395/830; 395/421.06; 395/281;  
395/828; 395/829; 395/866; 395/882; 395/884;  
395/898; 364/284.2; 364/280.9; 364/947.5;  
364/951.1**

[58] **Field of Search** ..... **364/238.5, 929,  
364/222.2, 280.2, 284, 231; 395/828, 835,  
836, 882, 883, 413, 419, 421.06, 421.07,  
884, 892**

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*Primary Examiner*—Thomas C. Lee

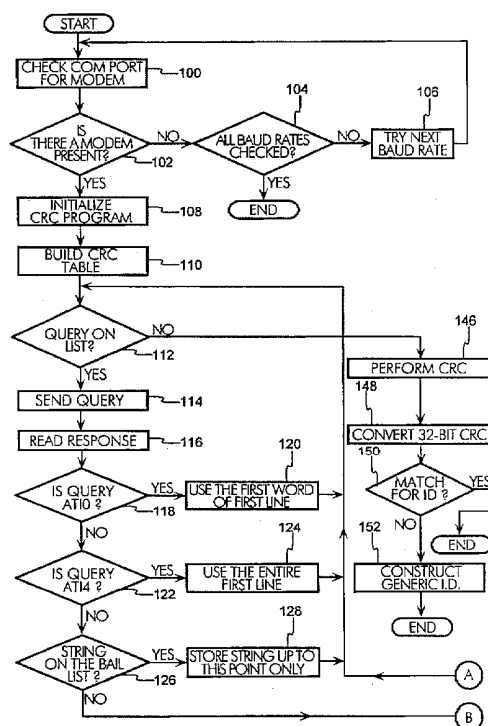
*Assistant Examiner*—Ki S. Kim

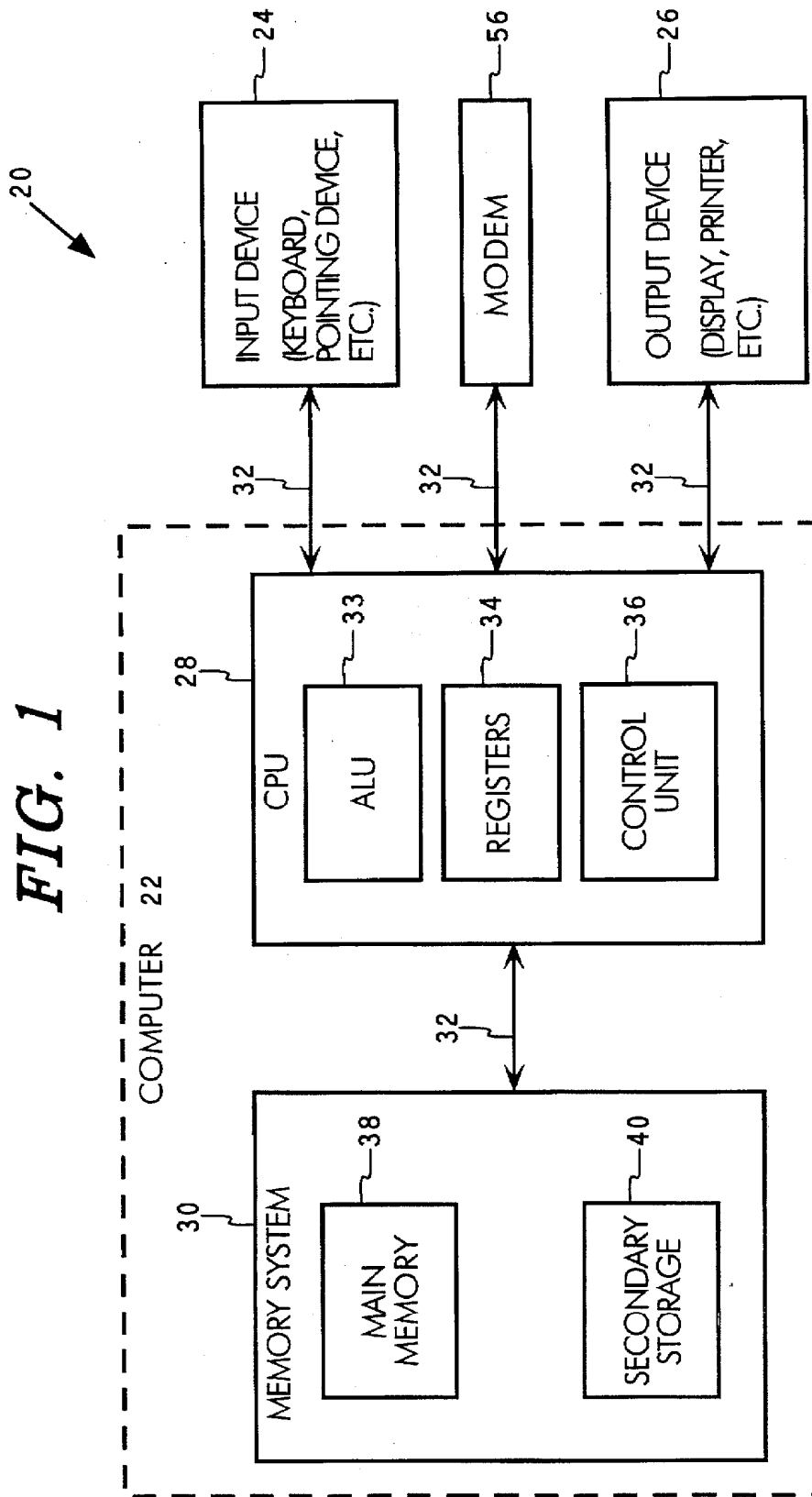
*Attorney, Agent, or Firm*—Klarquist Sparkman Campbell  
Leigh & Winston

#### [57] ABSTRACT

A device independent modem interface employs a call control and data transfer application programming interface for application programs to access a modem in a device independent fashion. A universal modem driver reads device specific information from a registry to issue specific control commands to a modem. The universal modem driver separates command mode and data mode of the modem transparently to the application. The modem interface also includes support for detecting a modem and for loading device specific information into the registry based on the modem identification.

**20 Claims, 5 Drawing Sheets**





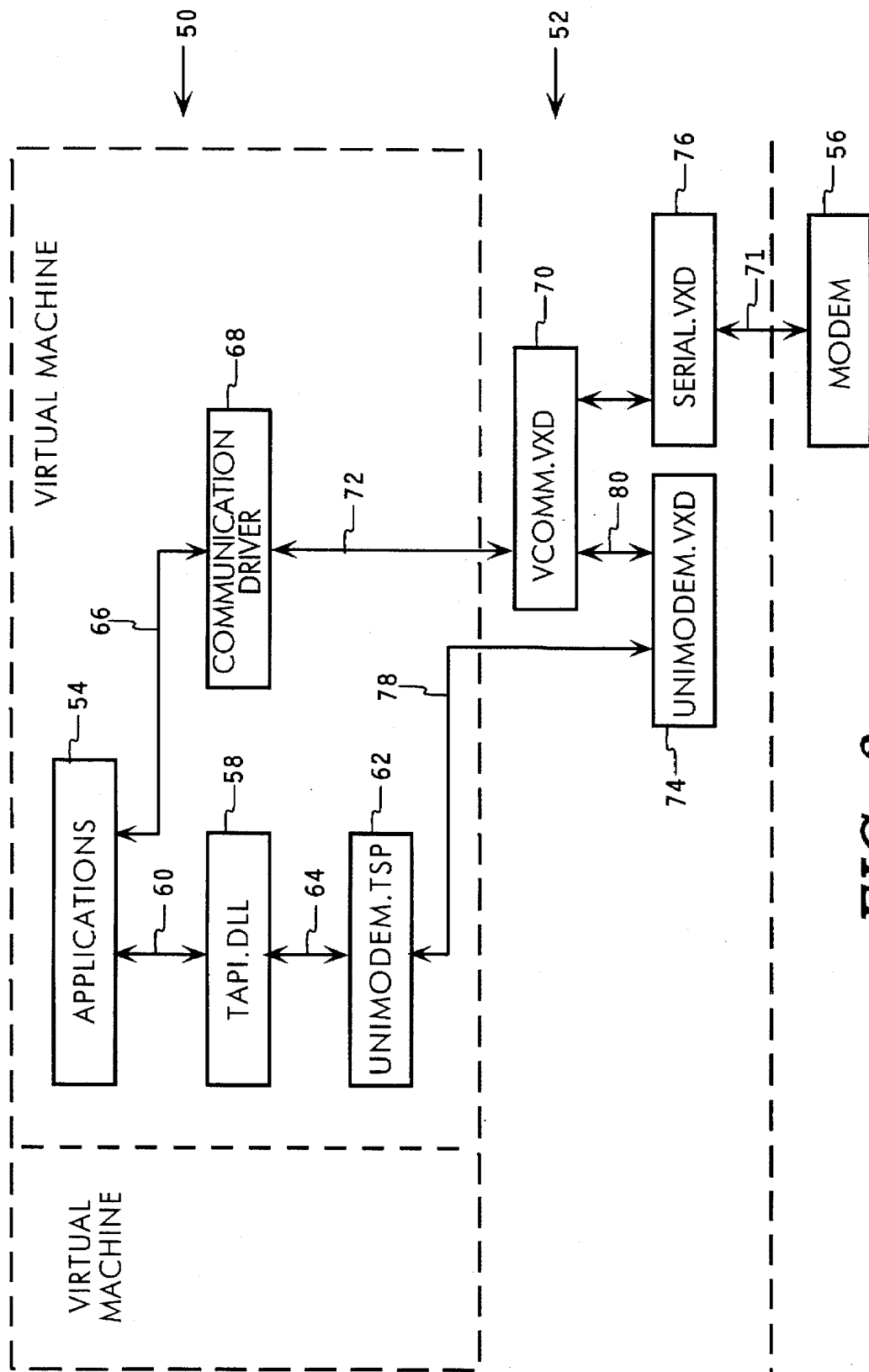


FIG. 2

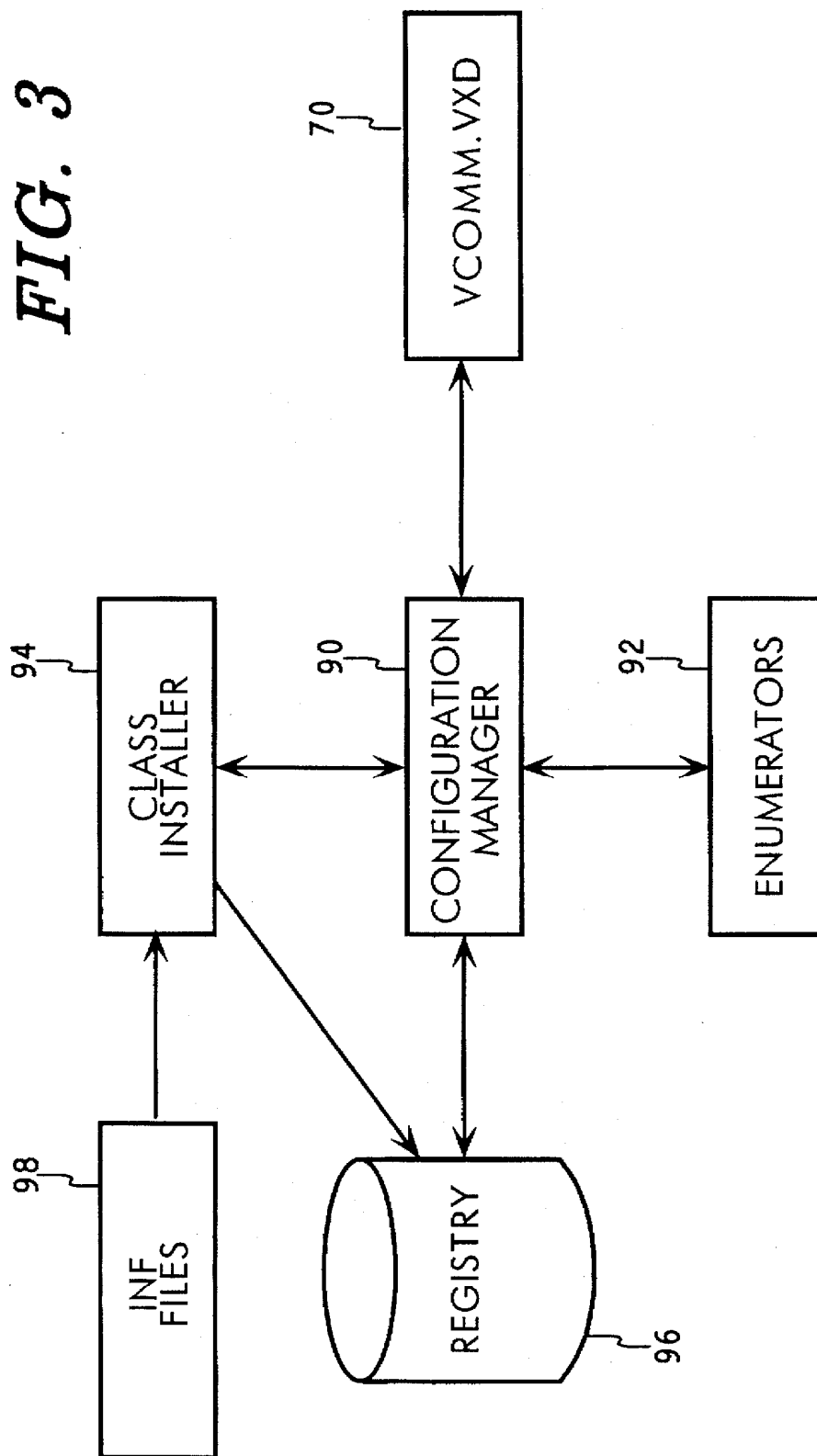
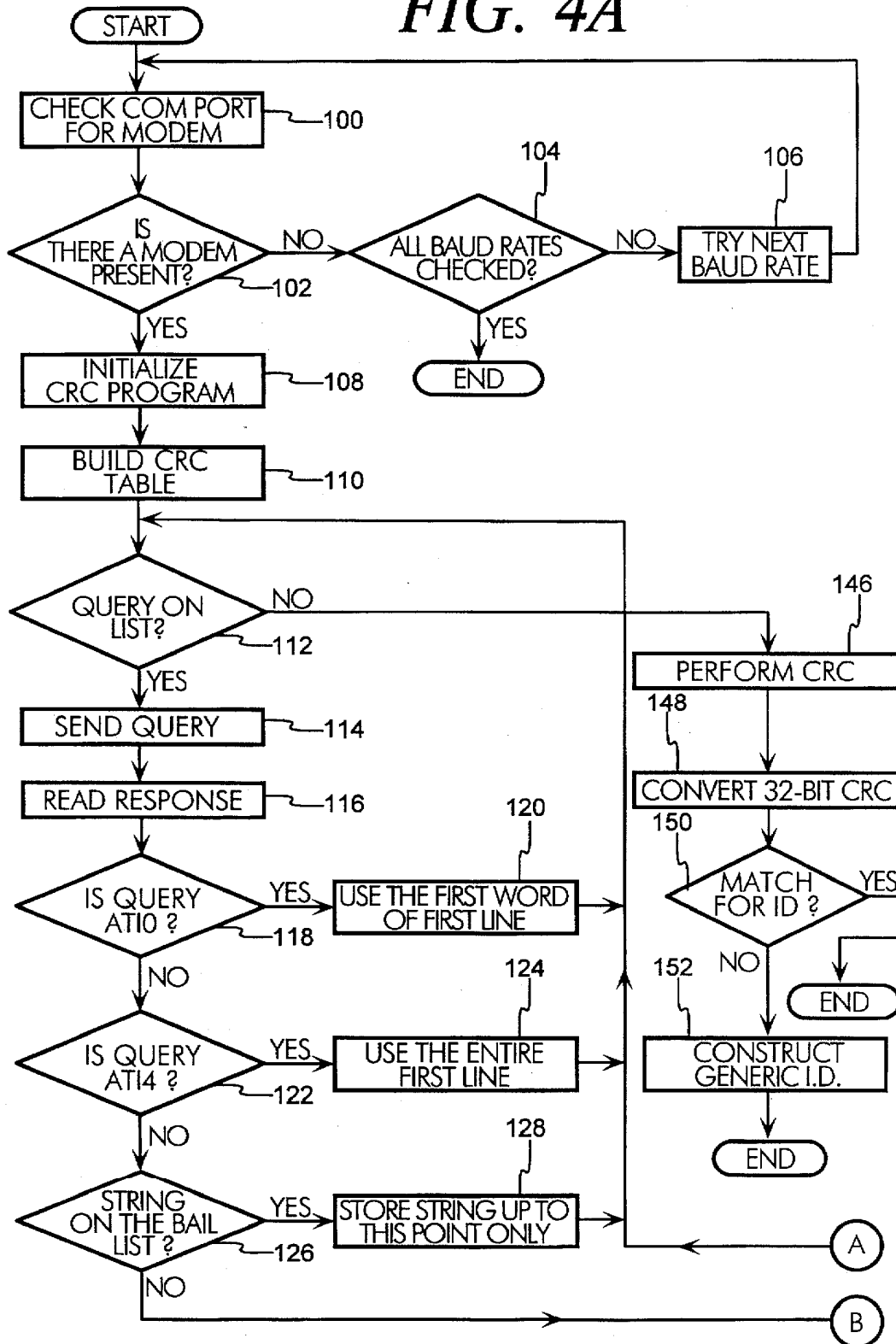
**FIG. 3**

FIG. 4A



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