

[54] REAL-TIME SPEECH PROCESSING DEVELOPMENT SYSTEM

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[51] Int. Cl.<sup>5</sup> ..... G10L 7/08; G10L 7/02

[52] U.S. Cl. .... 381/43; 381/41

[58] Field of Search ..... 381/41-46; 364/513.5

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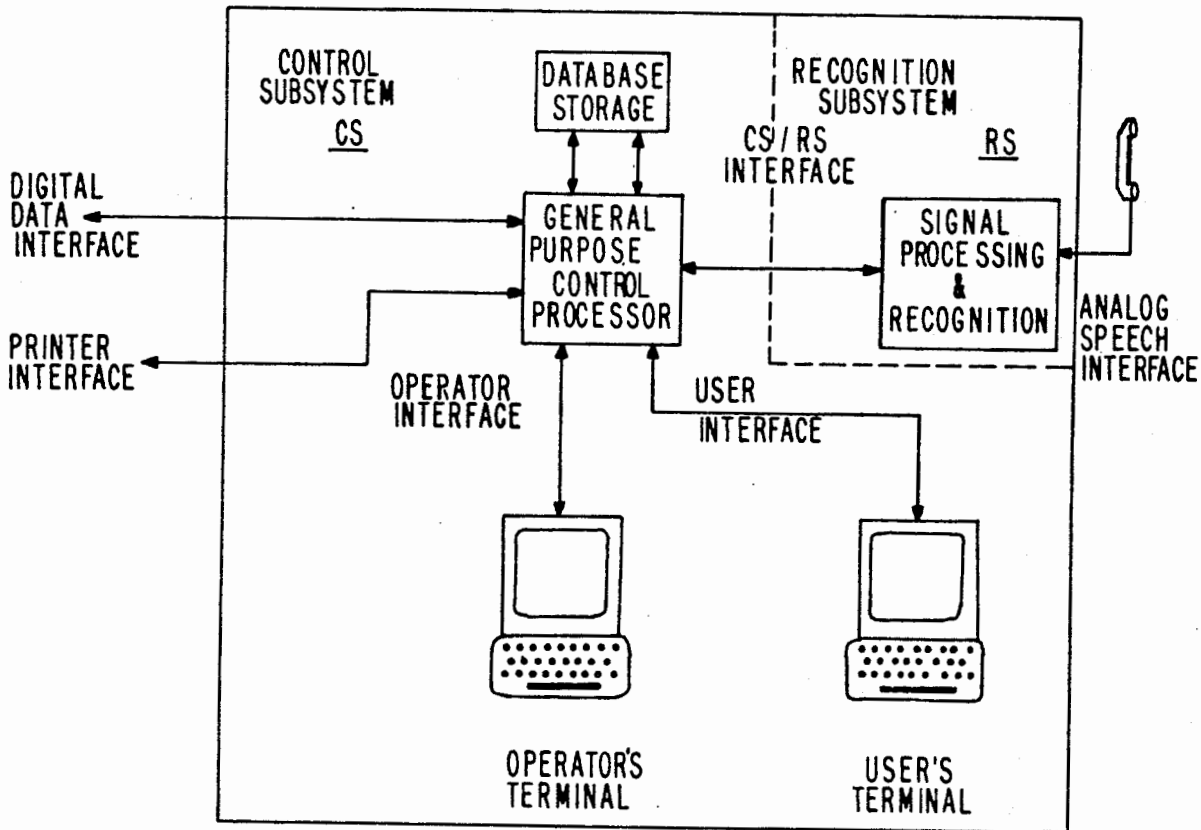
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[57] ABSTRACT

A real-time speech processing development system has a control subsystem (CS) and a recognition subsystem (RS) interconnected by a CS/RS interface. The control subsystem includes a control processor, an operator interface, a user interface, and a control program module for loading any one of a plurality of control programs which employ speech recognition processes. The recognition system RS includes a master processor, speech signal processor, and template matching processors all interconnected on a common bus which communicates with the control subsystem through the mediation of the CS/RS interface. The two-part configuration allows the control subsystem to be accessed by the operator for non-real-time system functions, and the recognition subsystem to be accessed by the user for real-time speech processing functions. An embodiment of a speaker verification system includes template enrollment, template training, recognition by template-concatenation and time alignment, silence and filler template generation, and speaker monitoring modes.

11 Claims, 5 Drawing Sheets



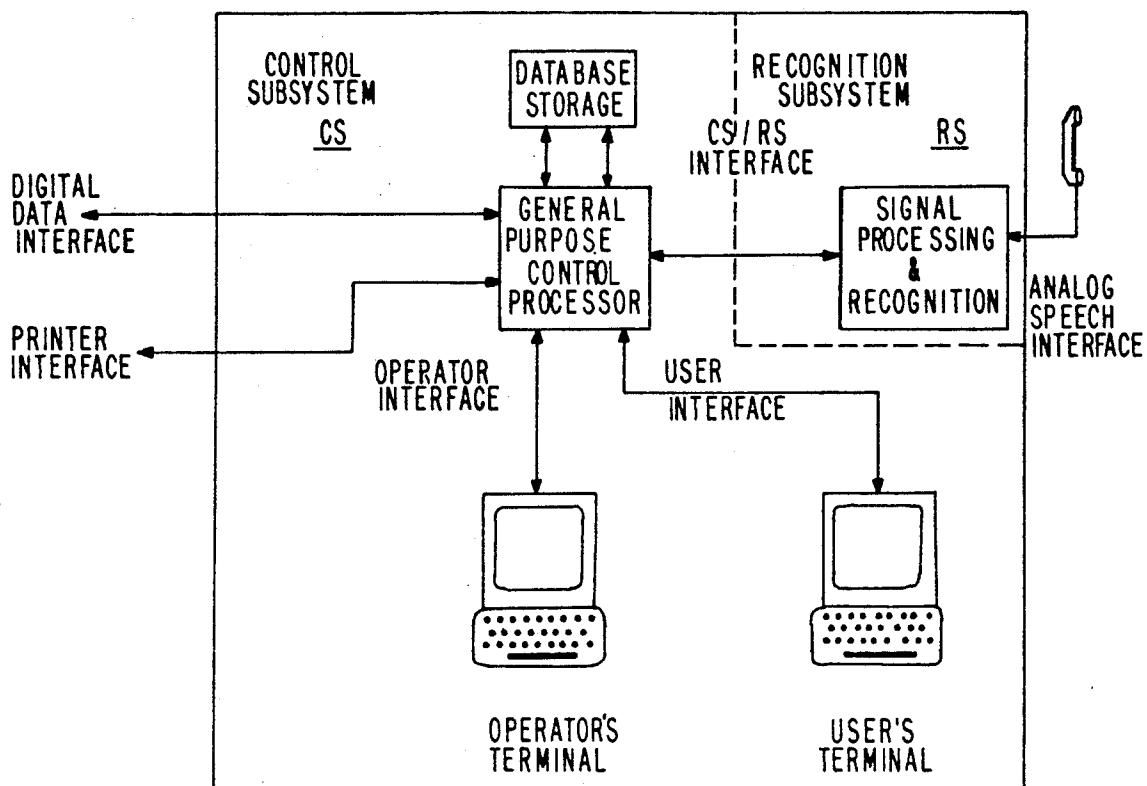


FIG. 1

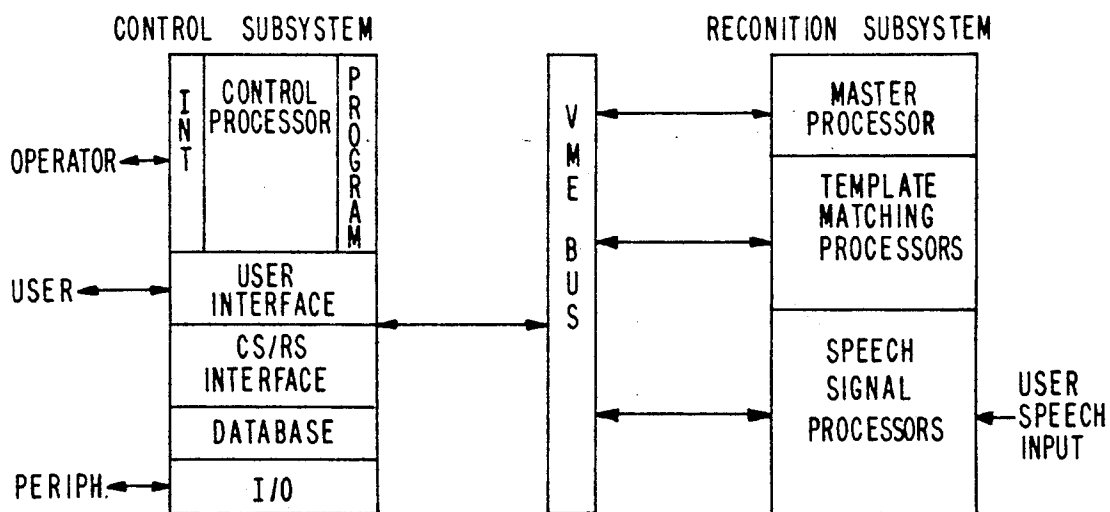


FIG. 2

CONTROL SUBSYSTEM CONTROL STRUCTURE

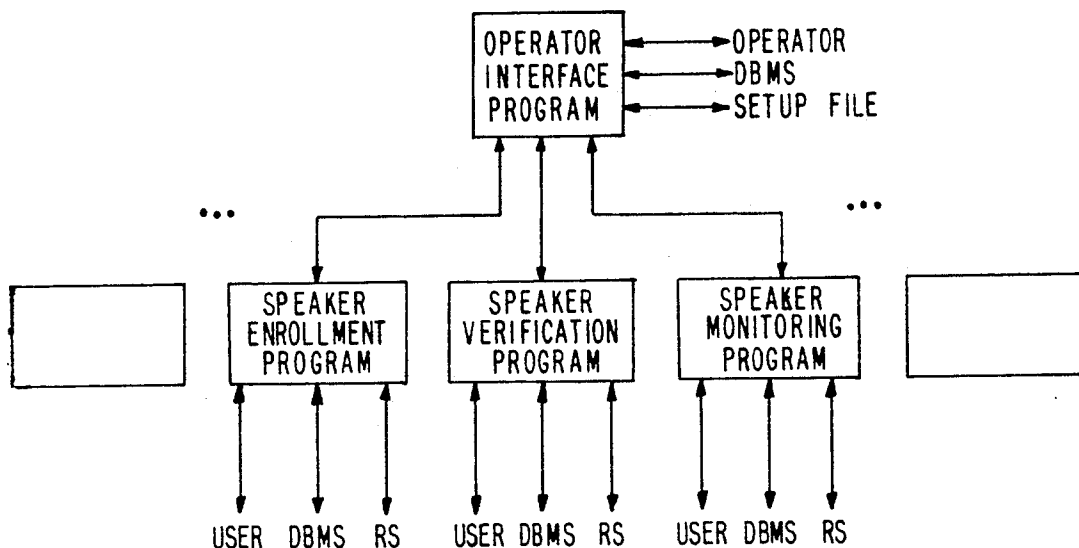


FIG. 3

RECOGNITION SUBSYSTEM CONTROL STRUCTURE

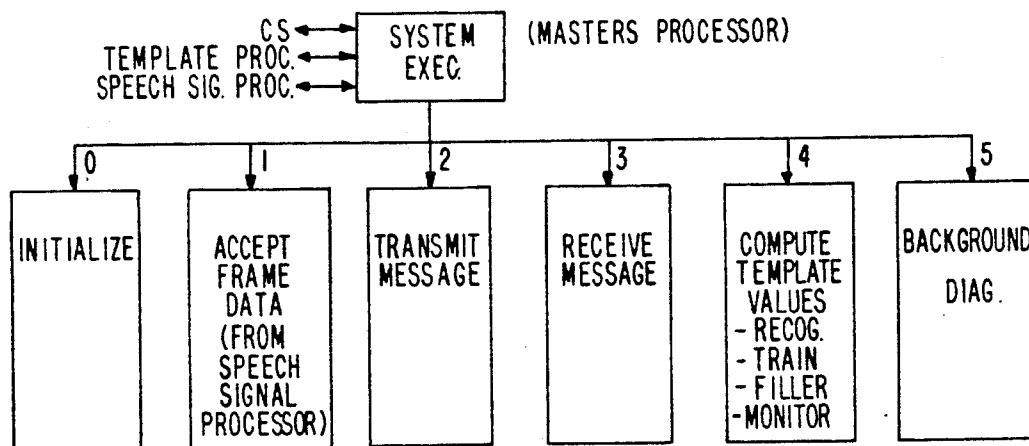


FIG. 4

MESSAGE PROTOCOL FOR TEMPLATE TRAINING

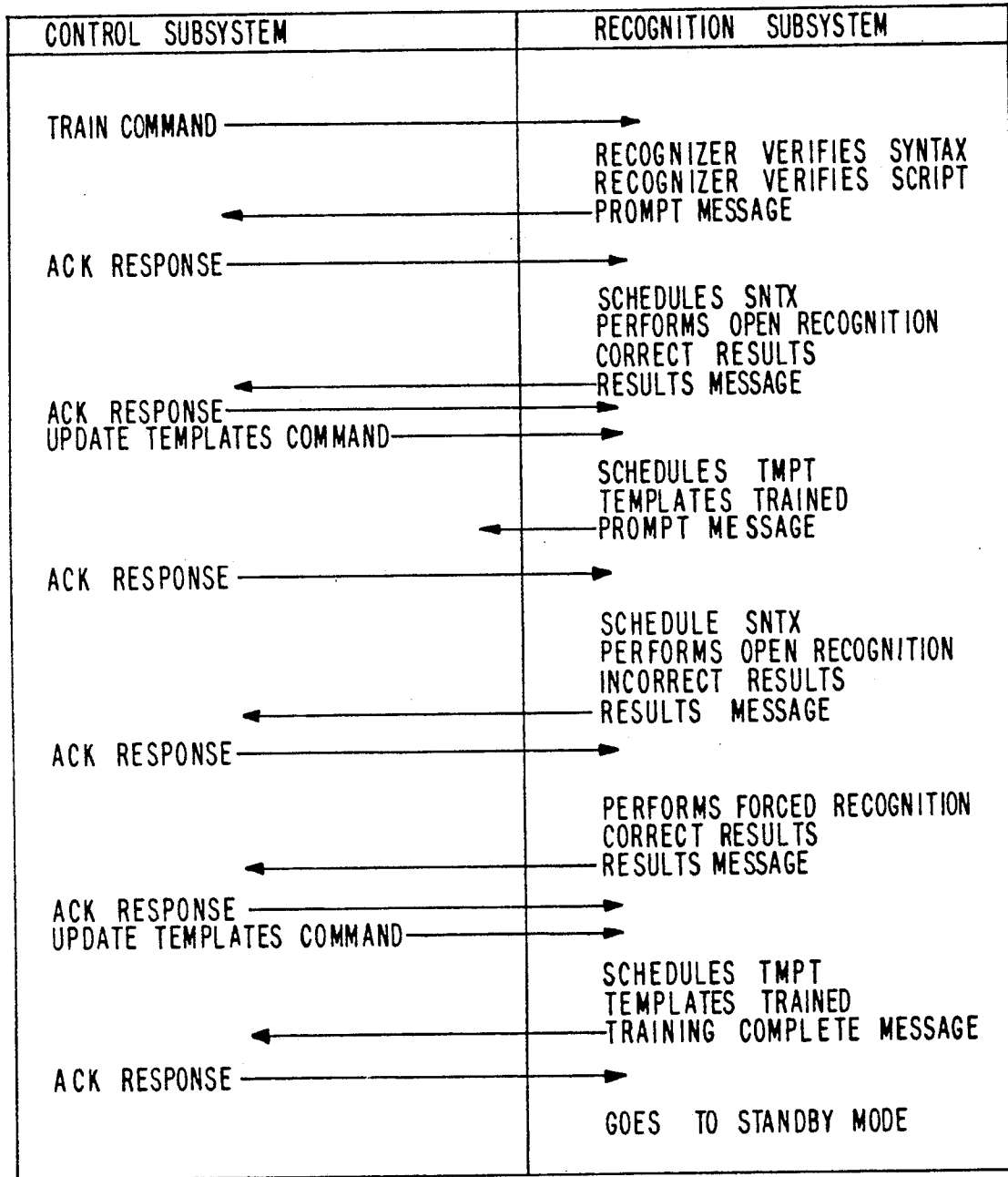


FIG. 5

MESSAGE PROTOCOL FOR TEMPLATE ENROLLMENT

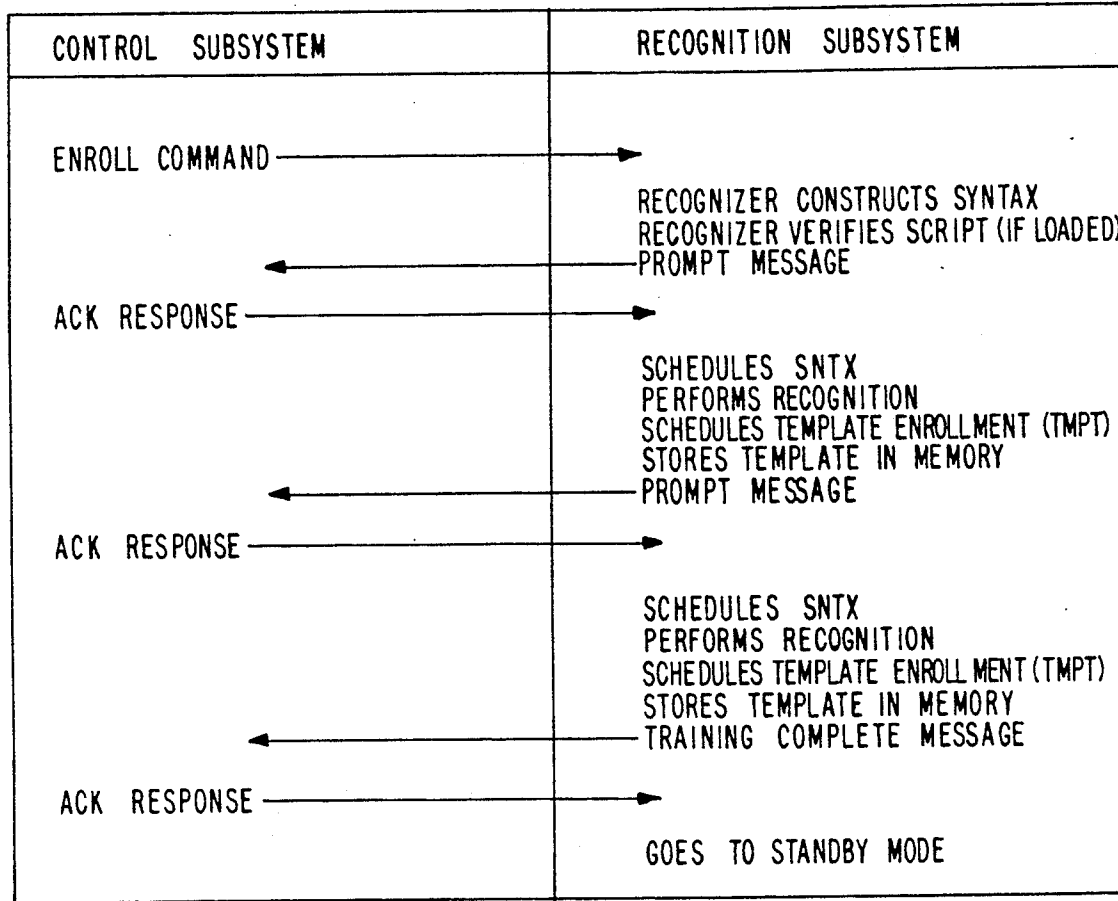


FIG. 6

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