

BBN VALAD: Using Speech at the Logistics Anchor Desk

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BBN has developed a system, called VALAD (Voice-Activated Logistics Anchor Desk), which provides a spoken language interface to a logistics information system. Logistics experts can use their natural voice to ask for different types of information or to control the display of the logistics system. The information is displayed on a map or appears in tabular form, as is appropriate. The voice interface is seamless in that the user can choose to use either voice or the traditional keyboard and mouse interface. However, the use of voice often allows the user to short-cut many mouse clicks with a single query or command. The 1200-word VALAD is speaker independent, and runs completely in software on off-the-shelf workstations.

VALAD was developed by BBN under the sponsorship of DARPA, the Defense Advanced Research Projects Agency, to demonstrate the applicability of advanced speech recognition and language understanding technology to realistic data base tasks. By enabling users to specify information in the database in natural English, VALAD supports applications such as military planning processes and enhances decision-support environments.

A formal experiment with VALAD (conducted by Major T. Bowman at the Command and General Staff College at Ft. Leavenworth) concluded that users could perform routine tasks in 1/3 the time using speech, compared to using the keyboard and mouse. The users, all Army personnel, also thought that speech would reduce training time because it was so easy to use.

VALAD was used at the Integrated Feasibility Demonstration at the JDEF in Washington DC in June, 1996. VALAD was also used in the Prairie Warrior '96 military exercise at Ft. Leavenworth in May 1996.