

Kuusisto, J., Ellman, A.: Speech control interfaces in virtual environments. ICMA 2006 International conference on mechatronics 7.-8,6.2006. Seinäjoki, Finland. 7 p.

Abstatract

Command interfaces based on speech recognition are being developed in many application fields. In this paper, current technologies for using speech-based control in virtual environments are considered. In an immersive virtual environment, the possibility of issuing commands in an intuitive and flexible manner is advantageous. Even basic navigation in unknown visual landscapes, accessing information and finding and selecting entities can be difficult using hand-held devices that operate on six degrees of freedom. Instead of using a hand-held pointing device to select a menu, scroll it and select a command, a spoken command can be initiated immediately. Speech allows the user to navigate without needing to lose eye-focus on the virtual display by looking at haptical input devices. Integrating speech control with other control devices results in a multimodal interface, which is more natural and flexible for the user than any single control method.