Abstract

Today many computer applications are available for the Blinds to interact with computer systems. Although computer interaction through keyboard is time consuming for visually impaired, their efforts can be minimized. Keystroke minimization or Keystroke saving is one of the approaches in minimizing the efforts of Blinds. The paper describes the work to achieve Keystroke saving. As the word prediction requires large database, in this work set of domain specific databases are constructed, where each domain database contains thousands of most commonly used words of that domain. It also construct prefix tree dynamically by modifying the Trie data structure. This dynamic prefix tree structure is used to perform prefix matching. The prefix matching is then analyzed to predict the required words from several domain specific databases used in this work. The paper describes the implementation and working of prefix matching and word prediction. The work presented in the paper is particularly useful for the blinds, as the work has considered all the difficulties of Blinds in interaction to computer through keyboard. The results of word prediction using modified trie are improved than trie based implementation.
An Efficient Approach to Keystroke Saving for the Blinds

- Bergroth, Lasse; Hakonen, Harri; Raita, Timo, A survey of longest common subsequence algorithms, Seventh International Symposium on String Processing and Information Retrieval, SPIRE 2000.
Colombo, Sri Lanka, April 2013.

**Index Terms**

Computer Science  
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**Keywords**

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