J2ME MOBILE APPLICATION:
HTML TO WML PARSER PLUGIN FOR J2ME MOBILE PHONE BROWSER

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Abstract

With the rapid growth of the Internet users, especially Mobile Web users, websites have to be able to deliver information equally to PC-based Internet users and Mobile Web users. Realizing this needs, this thesis is created. The objective of this thesis is to create a HTML to WML parser on the client side, which is J2ME Mobile Phone. Recent works show that most of the HTML parsers are created on server side.

The application use KXml2 to tokenize the input and the parser will translate the token into equivalent WML. The author uses semantic grammar rules for defining an acceptable input for the parser, and also uses the same way to define an acceptable input for the browser. To define which HTML tags are needed to be included in the parser, the author tried to find most commonly used tags in the websites.

Difficulties encountered when developing the application are the complex HTML tags and its combination parsed into a very limited WML tags. The parser can receive the aim of the thesis, which is giving WML input for mobile browser. While when tested on the real websites, the parser is able to parse the well-formed HTML and strict XHTML format, with 82% chances of success for XHTML format websites. The future works of this thesis includes supporting all HTML tags, using Fuzzy RDL/TT, tags balancing, implementing Artificial Intelligent agents.

Key words

J2ME, HTML parsing, WML, KXml2, Mobile Web, Client Side Parser