

Browserbot: An Online Browser Converter Tool



Sara Aycock, Cynthia Nikolai, Greg Madey
University of Notre Dame, Computer Science and Engineering



Introduction

Cross browser compatibility, or multi browser compatibility, is a requirement of almost every web site implemented today. Browsers sometimes have different software coding standards than each other. Programs written for a certain browser may have some features that will not be compatible with other browsers. The main features that are not compatible include Cascading Style Sheets (CSS), JavaScript, and even some HTML code. Additional features include ActiveX objects and third party toolkits. A browser code convertor is a useful tool for web site designers. Designers can write their code to conform to software requirements for a certain browser. They then can enter their code into the convertor and receive an updated code that is compatible with all the major web browsers.

Functions

Browserbot currently has three main functions;

1. getElementById(): The convertor searches for any instance of the *getElement-ById* method which returns an object by its id. This is a method that is compatible with Firefox, but not with some versions of Internet Explorer. The convertor exchanges this method with another one that is compatible with Internet Explorer and adds the new method at the end of the code.

2.<tbody>: Some versions of Internet Explorer require a tag called <tbody> in the code after a <table> tag in order for the table to be manipulated through JavaScript. The convertor inserts <tbody> tags after all <table> tags and closing <tbody> tags before each closing <table> tag.

3. getAttribute(): Some versions of Internet Explorer require that the *getAttribute* method uses the *className* attribute rather than the *class* attribute. The convertor finds all instances of this and adds an if statement and a *className* method.

Browserbot

BrowserBot as a web-based application consisting of a PHP processor and a web interface. The web interface is standard HTML, CSS, and JavaScript, and the PHP processor is a series of PHP logic files. As of right now Browserbot takes a Mozilla Firefox compatible code and converts it to a code compatible with both Mozilla and all versions of Internet Explorer.

The Program

The screenshot shows the 'BrowserBot Code Converter' web interface. At the top, it says 'WELCOME TO THE BROWSERBOT CODE CONVERTOR'. Below that is a section labeled 'ENTER CODE' with a large text area containing the following code:

```
<title></title>
</head>
<body>
<table>
</table>
<script type="text/javascript">
var test = myobject.getAttribute("class");
var getme = document.getElementById('talking');
</script>
</body>
</html>
```

Below the text area are buttons for 'Submit', 'Choose a file to upload:', 'Browse...', and 'Upload File'.

If the following is inputted into Browserbot:

Result

Tbody tags have been added.

The getAttribute className has been added.

The getElementById has been added.

The screenshot shows the 'BrowserBot Code Converter' web interface displaying the converted code. It says 'WELCOME TO THE BROWSERBOT CODE CONVERTOR' and 'YOUR NEW CODE'. The code in the text area is:

```
>
<html>
<head>
<title></title>
</head>
<body>
<table><tbody>
</tbody></table>
<script type="text/javascript">
if (document.all) var test = myobject.getAttribute("className") else var test =
myobject.getAttribute("class");
var getme = getElement('talking');
function getElement(aID){ //browser compatibility function - Opera and Mozilla
are the former; IE is the latter
return (document.getElementById(aID) ? document.getElementById(aID) :
document.all[aID])
} //end function getElement</script>
</body>
</html>
```

A 'back' link is visible at the bottom right of the code area.

Users can input their code by pasting it directly into the text box or by uploading it as a txt file.