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**Report of Web interoperability
discrepancy**

Report of Web interoperability discrepancy

Table of Contents

Foreword
1. Introduction
2. References
3. Terms and Definitions
4. Discrepancy Survey
5. Results of Discrepancy Survey
6. Summary
Annex A Online Resources
Annex B Other Discrepancies

Foreword

NEAOSS Forum (Northeast Asia Open Source Software promotion Forum) was formed by China, Korea and Japan governments and regional organizations for OSS promotion; China OSS Promotion Union, Korea OSS Promotion Forum and Japan OSS Promotion Forum. The Forum intends to promote Open Source Software in the northeast Asia area.

NEAOSS Forum formed “WG3: Standardization and Certification Study” in order to study Open Source Software standardization and certification in July 2004.

NEAOSS Forum WG3 formed subsidiary group SWG2 in June 2006 to accelerate promotion of OSS, to enhance Web interoperability between an existing proprietary browser, which currently has large market share, and OSS Web browsers.

This document was prepared by the NEAOSS Forum WG3 and is classified as Technical Report type 3.

1 Introduction

1.1 Background

Web interoperability issue has become a bottleneck of open source software evolution. A number of websites incorporate non-interoperable Web elements and cause various discrepancies while cross browsing. The unwanted rendering effects of these websites may frustrate users and consequently prevent them from adopting open source software. To address this issue, NEAOSS WG3/SWG2 dedicates to study Web interoperability.

1.2 Objective

The objective of this technical report is to identify current situation of Web interoperability and to provide information to public. By figuring out and classifying the Web interoperability discrepancies, this report provides the foundation of further research.

2 References

- HTML 4.01 Specification, W3C Recommendation 24 December 1999.
<http://www.w3.org/TR/html4/>
- XHTML Basic, W3C Recommendation 19 December 2000.
<http://www.w3.org/TR/2000/REC-xhtml-basic-20001219/>
- Cascading Style Sheets, level 2, CSS2 Specification, W3C Recommendation 12-May-1998.
<http://www.w3.org/TR/REC-CSS2/>
- Document Object Model (DOM) Level 1 Specification, Version 1.0, W3C Recommendation 1 October, 1998.
<http://www.w3.org/TR/REC-DOM-Level-1/>
- Document Object Model (DOM) Level 2 Core Specification, Version 1.0, W3C Recommendation 13 November, 2000.
<http://www.w3.org/TR/DOM-Level-2-Core/>
- Document Object Model (DOM) Level 2 HTML Specification, Version 1.0, W3C Recommendation 09 January 2003.
<http://www.w3.org/TR/DOM-Level-2-HTML/>
- Document Object Model (DOM) Level 2 Events Specification, Version 1.0, W3C Recommendation 13 November, 2000.
<http://www.w3.org/TR/DOM-Level-2-Events/>
- Document Object Model (DOM) Level 2 Style Specification, Version 1.0, W3C Recommendation 13 November, 2000.
<http://www.w3.org/TR/DOM-Level-2-Style/>
- Document Object Model (DOM) Level 3 Core Specification, Version 1.0, W3C Recommendation 07 April 2004.
<http://www.w3.org/TR/DOM-Level-3-Core/>

- Standard ECMA-262, ECMAScript Language Specification, 3rd edition (December 1999).
<http://www.ecma-international.org/publications/standards/Ecma-262.htm>

3 Terms and Definitions

Web element

A Web element in this TR is an element that affects structure, presentation, or interactive behavior of Web pages.

Standardized Web elements

Web elements that are defined in the specifications listed in the reference section.

Implementation-unique Web elements

Web elements that are specified by a certain Web browser vendor and supported only by the corresponding Web browsers.

Disregard of Standards

Web elements that are explicitly defined in the specifications listed in the reference section but not implemented strictly by browser vendors, including standardized Web elements which are not implemented.

Different Interpretation of Standards

Web elements that are defined in the specifications listed in the reference section, but the specifications have some room for browser vendors to interpret and implement the elements in their own ways.

4 Discrepancy Survey

4.1 Scope of the Survey

The scope of this survey includes Web elements consist of structure and media types defined by HTML/XHTML, presentation defined by CSS, and interactive behavior defined by ECMAScript and DOM.

Web browsers been investigated in the survey are IE 6.0 and Firefox 1.5. By the time the survey took place, these are the most popular Web browsers, whereas IE 7.0 and Firefox 2.0 are just emerging. Since the purpose of the survey is to find Web elements that cause interoperability problems, the result will be significant as long as the browsers are still widely adopted. It is not necessary to keep Web browsers to the newest version.

The scope of the target Web sites was decided according to the survey methods as mentioned in the next section.

4.2 Methods of the Survey

The duration of the survey is from Dec. 4th 2006 to Feb. 26th 2007. The methods include case-based approach and literature research.

Case-based approach has done by accessing urls of Web pages and comparing IE and Firefox rendering results and behaviors. The cases that have been studied came from following different sources.

- Problems report websites, like database registered in Firefox's "Reporting websites with problems".
- Other related projects, like feedback information collected by the TouchUpWeb system.
- Ranking list, like the categorized most-popular Chinese Websites list which is based on Alexa traffic rankings.
- Contribution from community. like Korean Web Standards related community members helped to report Web interoperability problems they encountered.

Literature research has done by retrieving interoperability issues from various kinds of document and verifying the problems. The types of document include online resources and commercially available books, as mentioned in annex A.1 and annex A.1 respectively.

5 Results of Discrepancy Survey

The details of the discrepancies are described in this chapter. The discrepancies are classified into 4 categories: "Structure", "Presentation", "Behavior", and "Media Types". Each category is described in a separate section.

The "structure" category covers the problems of HTML/XHTML, the "Presentation" category covers the problems of CSS, "Behavior" category covers the problems of ECMAScript and DOM, "Media Types" category covers the problems of incompatible media types.

5.1 Structure (Markup Language)

The discrepancies of HTML/XHTML are classified into 3 categories, "implementation-unique Web elements", "Disregard of Standards", and "Different Interpretation of Standards", as defined in chapter 3. Each category is described in a separate subsection.

Description of each discrepancy consists of 4 parts. "Name" gives the name of the Web element, "Status" gives information about support statuses of the Web element in different Web browsers, "Description" gives a brief explanation of the discrepancy, "Example" gives information to reproduce the discrepancy, it may be a url of the problematic Web page, or snapshots of the Web page browsing with different Web browsers, or a piece of sample code to demonstrate the discrepancy, or arbitrary combinations of the above.

5.1.1 Implementation-unique Web elements

1) Name: align (<colgroup>, <col>) (Attribute)

Status:

Internet Explorer	Supported
Firefox	not supported

Description:

This attribute is specified in W3C HTML. However, Firefox have not supported yet.

Example:

http://www.tagindex.com/html_tag/table/colgroup.html

```
<table border="1">
<colgroup width="100">
<colgroup align="right" width="100">
<tr><td>A</td><td>B</td></tr>
<tr><td>A</td><td>B</td></tr>
<tr><td>A</td><td>B</td></tr>
</table>
```

2) Name: align (<fieldset>) (Attribute)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is IE-only attribute.

Example:

```
<fieldset align="right">
<input type="text"><br>
<input type="button" value="button">
</fieldset>
<p>Next paragraph.
```

3) Name: align (<select>) (Attribute)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is IE-only attribute.

Example:

```
<select align="right">  
<option>OPTION</option>  
</select>
```

4) Name: basefont (Tag)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This tag had been specified in HTML. However, it have not been available since HTML 4.01.

Example:

<http://www.htmq.com/html/basefont.shtml>

```
<html> <head>  
<title></title>  
</head>  
  
<body>  
  
<basefont size="1">  
basefont size="1"  
<br>  
<basefont size="7">  
basefont size="7"  
</body> </html>
```

5) Name: **bgproperties** (<body>) (Attribute)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is IE-only attribute.

Example:

http://www.tagindex.com/html_tag/page/background_example02.html

```
<html> <head>
<title></title>
</head>

<body background="logo.gif" bgproperties="fixed">
<div style="height: 5000px;">bgproperties</div>
</body> </html>
```

6) Name: **blink** (Element)

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is Firefox-only tag.

Example:

<http://www.htmq.com/html/blink.shtml>

```
<blink>
This text is blinking.
</blink>
```


7) Name: bordercolor, bordercolorlight, bordercolordark

(<table><tr><th><td>) (Attribute)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

These are IE-only attributes.

Example:

<http://www1.nisiq.net/~cpulot/Shikaku.htm>

```
<table border="5"><tr>
<th bordercolor="red">th bordercolor="red"</th>
<td bordercolorlight="blue" bordercolordark="green">td bordercolorlight="blue"
bordercolordark="green"</td>
</tr>
<tr bordercolor="yellow">
<td>tr bordercolor="yellow"</td>
<td>&nbsp;</td>
</tr>
</table>
```

8) Name: bordercolorlight in <table><th><td><tr> (Attribute)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is IE-only attribute.

Example:

```
<table border="5" bordercolorlight="blue" bordercolordark="green">
<tr>
<td>table bordercolorlight="blue" bordercolordark="green"</td>
</tr>
</table>
```

9) Name: bordercolordark of <table><th><td><tr> (Attribute)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

These are IE-only attributes.

Example:

```
<table border="5" bordercolorlight="blue" bordercolordark="green">
<tr>
<td>table bordercolorlight="blue" bordercolordark="green"</td>
</tr>
</table>
```

10)Name: bgcolor="transparent" (<iframe>) (Attribute)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is IE-specific attribute.

Example:

```
<html> <head>
<title></title>
</head>

<body style="background-image: url(logo.gif);">

<iframe src="iframe_trans_child.html" width="300" height="100" align="left"
vspace="100" hspace="100" allowtransparency="false" border="6">sample</iframe>

</body> </html>
```

11)Name: caption (<valign>) (Attribute)

Status:

Internet Explorer	supported
--------------------------	-----------

Firefox	not supported
----------------	---------------

Description:

This is IE-only attribute.

Example:

```
<table height="50" border="1">
  <tr><td width="100">table</td></tr>
  <caption valign="bottom"> table 1 This is caption</caption>
</table>
```

12)Name: Conditional Comment

Status:

Internet Explorer	supported
Firefox	not supported

Description:

Conditional comment is IE-only syntax which used for display IE-specific contents and functions.

Example:

```
<!--[if IE]>
Hello, World.
<![endif]-->
```

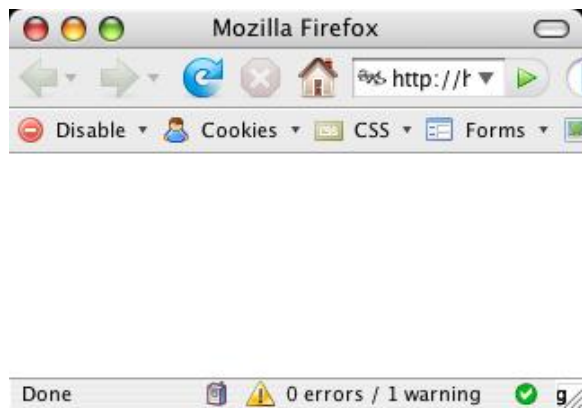


Figure 2:Firefox

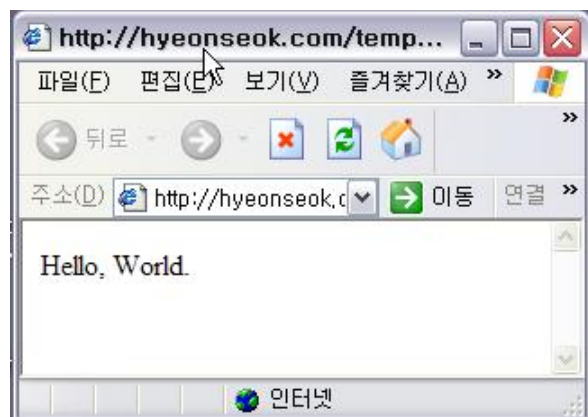


Figure 1:IE

13)Name: contenteditable (Attribute)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is IE-only attribute.

Example:

<http://www.tohoho-web.com/html/attr/contenteditable.htm>

```
<div contenteditable="true">
This sentence is contenteditable.
</div>
```

14)Name: disabled (Attribute)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is IE-only attribute.

Example:

```
<div disabled>
This sentence is disabled.
</div>
```

15)Name: dynsrc, loop, lopedelay, start () (Attribute)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is IE-only attribute.

Example:

```
<div>

</div>
```

16)Name: equiv="imagemetoolbar" (<meta>) (value of Attribute)**Status:**

Internet Explorer	supported
Firefox	not supported

Description:

This is IE-only value.

Example:

http://www.tagindex.com/html_tag/page/meta_12.html

```
<html> <head>
<meta http-equiv="Imagetoolbar" content="no">
<title></title>
</head>

<body>



</body> </html>
```

17)Name: event (<script>) (Attribute)**Status:**

Internet Explorer	Supported
Firefox	not supported

Description:

This attribute is reserved for future extension of browser function.

Example:

Not available.

18)Name: for (<script>) (Attribute)**Status:**

Internet Explorer	Supported
Firefox	not supported

Description:

This attribute is reserved for future extension of browser function.

Example:

Not available.

19)Name: framespacing (<frameset>) (Attribute)**Status:**

Internet Explorer	Supported
Firefox	not supported

Description:

This is IE-only attribute.

Example:

http://www.tagindex.com/html_tag/frame/frameset_bordercolor.html

```
<html> <head>
<title></title>
</head>

<frameset cols="300,*" framespacing="20" bordercolor="#ffcc00">
<frame src="a.html">
<frame src="b.html">
</frameset>

<body>

</body> </html>
```

20)Name: galleryimg () (Attribute)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is IE-only attribute.

Example:

```

```

21)Name: hidefocus (Attribute)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is IE-only attribute.

Example:

<http://www.tohoho-web.com/html/attr/hidefocus.htm>

```
<a href="xxx.html" hidefocus="true">hide focus</a>
```

22)Name: hspace, vspace (<iframe>) (Attribute)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is IE-only attribute.

Example:

http://www.tagindex.com/html_tag/frame/i_space.html

```
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML//EN">
<html> <head>
<title></title>
</head>

<body bgcolor="#FFFFCC">

<iframe src="iframe_child.html" width="300" height="100" align="left" vspace="100"
hspace="100" >sample</iframe>

</body> </html>
```

23) Name: hspace, vspace (<table>) (Attribute)

Status:

Internet Explorer	not supported
Firefox	supported

Description:

These are NN-only attributes.

Example:

```
<div width="500px">
text text text
<table border="1" width="100px" hspace="50px" vspace="50px"><tr><td>Table
</td></tr></table>
text text text
</div>
```

24) Name: language (except <script>) (Attribute)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is IE-only attribute.

Example:

<http://www.tohoho-web.com/html/attr/language.htm>


```

<input type=button value="JavaScript" language="JavaScript"
  onclick="alert(' This is JavaScript. ')">: work on IE/Firefox. <br>
<input type=button value="VB without language"
  onclick="MsgBox(' This is VBScript. ')">: don't work. <br>
<input type=button value="VB with language" language="VBScript"
  onclick="MsgBox(' This is VBScript. ')">: work on IE.

```

25)Name: lowsrc, suppress () (Property)

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is NN-only attribute.

Example:

```




```

26)Name: <Marquee> (Element)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is IE-only tag. The DOM Scripting must be recommended instead of this tag.

Example:

27)Name: marginheight, marginwidth (<body>) (Attribute)

Status:

Internet Explorer	not supported
Firefox	supported

29)Name: <spacer> (Element)

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is Firefox-only tag.

Example:

<http://www.htmq.com/html/spacer.shtml>

```
<div>
text
<spacer type="block" width="100" height="50">
text
</div>
```

30)Name: topmargin, leftmargin (<body>) (Attribute)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

These are IE-only attributes.

Example:

http://www.tagindex.com/html_tag/page/margin_example02.html,

http://www.tagindex.com/html_tag/page/margin_example03.html

```
<html> <head>
<title></title>
</head>

<body marginheight="50" marginwidth="50" topmargin="200" leftmargin="200">
for Firefox: <br>
marginheight="50" <br>
marginwidth="50" <br>
<br>
for IE: <br>
topmargin="200" <br>
leftmargin="200" <br>

</body> </html>
```


5.1.2 Disregard of Standards

1) Name: acronym (Tag)

Status:

Internet Explorer	Supported (but inappropriate)
Firefox	Supported

Description:

IE supports, but does not underline the target text.

Example:

<http://www.htmq.com/html/acronym.shtml>

```
<div>
This is <acronym title="acronym">acronym</acronym>.
</div>
```

2) Name: abbr (Tag)

Status:

Internet Explorer	Not supported
Firefox	Supported

Description:

Indicates an abbreviated form (e.g., WWW, HTTP, URI, Mass., etc.) is not supported by Internet Explorer. (IE7 is supported).

Example:

```
<ABBR title="World Wide Web">WWW</ABBR>
<ABBR lang="fr"
  title="Société Nationale des Chemins de Fer">
  SNCF
</ABBR>
<ABBR lang="es" title="Doñana">Doñana</ABBR>
<ABBR title="Abbreviation">abbr.</ABBR>
```

3) Name: align (<caption>) (Attribute)

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

IE interpret <caption align="left (right)"> as a caption is placed at the bottom-left side of a table. Firefox does as a caption is placed at the left side of a table.

Example:

http://www.rakuten-sec.co.jp/ITS/fee/fe01_stock.html

```
<table height="50" border="1">
  <tr><td width="100">table</td></tr>
  <caption align="left"> table 1 This is caption</caption>
</table>
```

4) Name: column number (Tag)

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

When the numbers of <td> and <col> are different, IE regards the number of <td> as the number of columns. Firefox regards the number of <col> as the number of columns.

Example:

<http://www.city.sendai.jp/syoubou/shirei/index.html>

```
<table border="1">
  <col width="100">
  <col width="100">
  <col width="100">
  <tr><td>A</td><td>B</td></tr>
  <tr><td>A</td><td>B</td></tr>
  <tr><td>A</td><td>B</td></tr>
</table>
```

5) Name: del (Tag)

Status:

Internet Explorer	not conformed
Firefox	partly conformed

Description:

IE applies to block elements. Firefox also applies to block elements if the page is in HTML, and does not apply if the page is in XHTML.

Example:

<http://starry.night.nu/web/prog/javascript/>

```
<?xml version="1.0" encoding="Shift_JIS"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="ja" lang="ja">
  <head>
  </head>
  <body>

  <del><div>div</div>text</del>

  </body>
</html>
```

6) Name: directory separator (Other)

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

IE can interpret “¥” as a separator of directories. Only “/” should be used.

Example:

```
<a href=".¥del.html">link to del.html</a>
```

7) Name: object (Tag)

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

Nested <object> should be rendered as follows. First, browsers should try to play the outer object. Then, if they cannot play the object, they should try to play the inner object. IE always play both objects.

Example:

```
<object data="logo.gif" type="image/gif" width="300" height="100">  
<object data="logo.gif" type="image/gif" width="300" height="100"></object>  
</object>
```

8) Name: type (<object>) (Attribute)

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

IE can play object even if "type" attribute is not included in <object>. IE detect file type of <object> element by "classid". When classid is not present, IE detect file type by mime-type sniffing function after download is done and streaming of media is not supported.

Example:

<http://www.tvon.biz/music/>

9) Name: zero width table (Attribute/Property)

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

IE does not render tables with "table-layout: fixed; width: 1px;". However, it might be better to render.

If column widths prove to be too narrow for the contents of a particular table cell, user agents may choose to reflow the table.

Example:

<http://www.hotelfinfo.jp/>

<http://ihotel.jp/>

<http://www.iair.jp/>

<http://ihotelcn.com/>

5.1.3 Different Interpretation of Standards

1) Name: border and border-width (Attribute and Property)

Status:

Internet Explorer	use border-width
Firefox	use boder

Description:

There is a difference between IE and Firefox when both border attribute and border-width properties are specified to the same element.

Example:

<http://www.vn.emb-japan.go.jp/html/jabout.html>

```
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML//EN">
<html> <head>
<title></title>
</head>

<body>

<table border="1" style="border-collapse: collapse; border-width: 0px; "
width="100%" >
  <tr>
    <td width="3%" >&nbsp;</td>
    <td width="*"></td>
  </tr>
</table>

</body> </html>
```

2) Name: gap in img element

Status:

Internet Explorer	inline and 3px space at the bottom
Firefox	no space

Description:

In standards mode, IE renders img element at inline mode and 3px space at the bottom of image. Firefox renders without any space.

Example:

3) Name: q (Tag)

Status:

Internet Explorer	not quoted
Firefox	quoted with “”

Description:

IE simply renders text in <q>, and Firefox renders text with quotation “”.

Example:

<http://www.htmq.com/html/q.shtml>

```
<div>
This is <q>quotation</q>.
</div>
```

4) Name: <TD nowrap> & <TD width> (Attribute)

Status:

Internet Explorer	“width” supersedes “nowrap”
Firefox	“nowrap” supersedes “width”

Description:

When “width (px) ” and “nowrap“ are specified in the same <td>, IE renders the cell with the specified width and text will be folded. Firefox renders the cell as IE, but text will not be folded.

Example:

<http://www.wowow.co.jp/schedule/>

```
<table border="1" width="100">
  <col>
  <col width="30">
  <tr><td>B</td><td nowrap >This is a pen. This is a pen. This is a pen.</td></tr>
  <tr><td>A</td><td>B</td></tr>
  <tr><td>A</td><td>B</td></tr>
</table>
```

5) Name: , default style difference

Status:

Internet Explorer	using margin
Firefox	using padding

Description:

IE uses margin property for marker area. Firefox uses padding property for marker area.

Example:

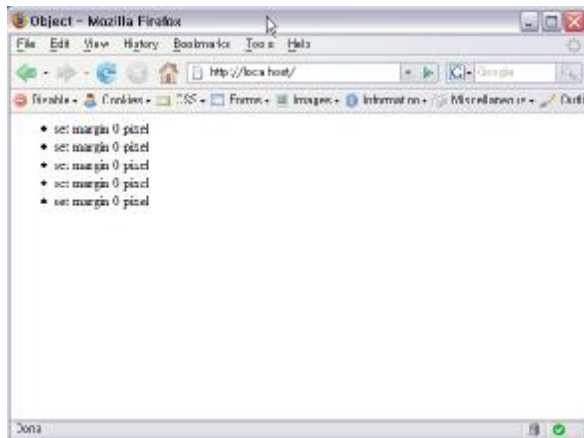


Figure 4: Firefox

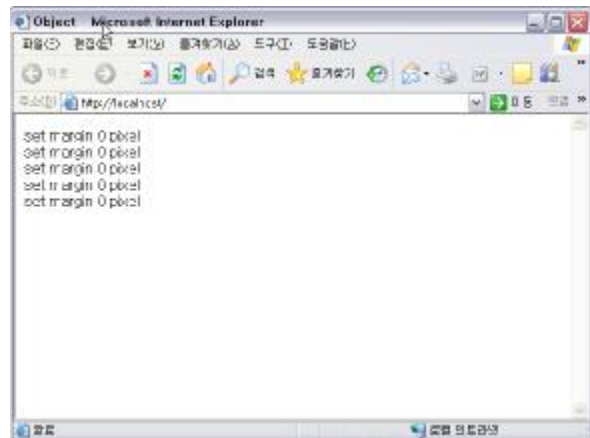


Figure 3: IE

6) Name: xml prolog

Status:

Internet Explorer	renders in quirks mode
Firefox	supported

Description:

In case of the XML declaration of first line, the HTML file must be rendered with strict (standard) mode. Firefox and other browsers renders HTML in strict mode, but Internet Explorer only does it in quarks mode.

Example:

```
<?xml version="1.0"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd ">
```

5.2 Presentation (Style Sheet)

The details of the discrepancies of CSS are described in this section. The classification of discrepancies and subsection organization are similar to section 5.1. The same description structure as mentioned in section 5.1 is also utilized in this section.

5.2.1 Implementation-unique Web elements

1) Name: background-position-x (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"background-position-x" is not standardized, and is supported only by IE.

Example:

```
<html> <head>
<title>background</title>
<STYLE TYPE="text/css">
<!--
Body {
background-position-x: 100px;
background-position-y: 100px;
background-image: url("logo.gif");
background-repeat: no-repeat;
}
-->
</STYLE>
</head>

<body>

<div style="height: 500px;">
background-position-x: 100px;<br>
background-position-y: 100px;<br>
background-attachment: fixed;<br>
background-image: url("logo.gif");<br>
background-repeat: no-repeat;
</div>

<H1 style="background-attachment: fixed; background-image: url('logo.gif');">
background-attachment: fixed;</H1>

<H1 style="position: fixed;">position: fixed;</H1>

<div style="height: 5000px;"></div>

</body> </html>
```

2) Name: background-position-y (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"background-position-y" is not standardized, and is supported only by IE.

Example:

```
<html> <head>
<title>background</title>
<STYLE TYPE="text/css">
<!--
Body{
background-position-x: 100px;
background-position-y: 100px;
background-image: url("logo.gif");
background-repeat: no-repeat;
}
-->
</STYLE>
</head>

<body>

<div style="height: 500px;">
background-position-x: 100px;<br>
background-position-y: 100px;<br>
background-attachment: fixed;<br>
background-image: url("logo.gif");<br>
background-repeat: no-repeat;
</div>

<H1 style="background-attachment: fixed; background-image: url('logo.gif');
">
background-attachment: fixed;</H1>

<H1 style="position: fixed;">position: fixed;</H1>

<div style="height: 5000px;"></div>

</body> </html>
```

3) Name: behavior (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"behavior" is not standardized, and is supported only by IE.

Example:

http://www5e.biglobe.ne.jp/~access_r/hp/css/css_behavior_001.html

```
<div style="behavior: url(behavior.htc);"> Behavior sample. Click here!</div>
```

behavior.htc:

```
<SCRIPT TYPE="text/javascript">
<!--
attachEvent("onclick", click);

function click() {
    alert();
}

-->
</SCRIPT>
```

4) Name: filter (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"filter" is not standardized, and is supported only by IE.

Example:

<http://www.htmq.com/style/filter.shtml>

```

```



5) Name: ime-mode (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"ime-mode" is not standardized, and is supported only by IE.

Example:

<http://www.htmq.com/style/ime-mode.shtml>

```
<input type="text" size="30" style="ime-mode: disabled;">
```

6) Name: layout-grid (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"layout-grid" is not standardized, and is supported only by IE.

Example:

<http://www.htmq.com/style/layout-grid.shtml>

```
<p style="layout-grid: both fixed 50px 10px;">  
This is a sample of layout-grid.  
This is a sample of layout-grid.  
This is a sample of layout-grid.  
This is a sample of layout-grid.  
</p>
```

7) Name: layout-grid-char (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"layout-grid-char" is not standardized, and is supported only by IE.

Example:

<http://www.htmq.com/style/layout-grid-char.shtml>

```
<p style="layout-grid-mode: both; layout-grid-char: 10px;">  
This is a sample of layout-grid.  
This is a sample of layout-grid.  
This is a sample of layout-grid.  
This is a sample of layout-grid.  
</p>
```

8) Name: layout-grid-mode (Property)

Status:

Internet Explorer	supported
--------------------------	-----------

Firefox	not supported
----------------	---------------

Description:

"layout-grid-mode" is not standardized, and is supported only by IE.

Example:

<http://www.htmq.com/style/layout-grid-mode.shtml>

```
<p style="layout-grid-mode: both; layout-grid-char: 10px;">
This is a sample of layout-grid.
This is a sample of layout-grid.
This is a sample of layout-grid.
This is a sample of layout-grid.
</p>
```

9) Name: layout-grid-line (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"layout-grid-line" is not standardized, and is supported only by IE.

Example:

<http://www.htmq.com/style/layout-grid-line.shtml>

```
<p style="layout-grid-mode: both; layout-grid-line: 50px;">
This is a sample of layout-grid.
This is a sample of layout-grid.
This is a sample of layout-grid.
This is a sample of layout-grid.
</p>
```

10)Name: layout-grid-type (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"layout-grid-type" is not standardized, and is supported only by IE.

Example:

<http://www.htmq.com/style/layout-grid-type.shtml>

```
<p style="layout-grid-mode: both; layout-grid-type: loose; layout-grid-char: 2ex;">
This is a sample of layout-grid.
This is a sample of layout-grid.
This is a sample of layout-grid.
This is a sample of layout-grid.
</p>
<p style="layout-grid-mode: both; layout-grid-type: strict; layout-grid-char: 2ex;">
This is a sample of layout-grid.
This is a sample of layout-grid.
This is a sample of layout-grid.
This is a sample of layout-grid.
</p>
```

11)Name: line-break (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"line-break" is not standardized, and is supported only by IE.

Example:

<http://www.htmq.com/style/line-break.shtml>

12)Name: ruby-align (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"ruby-align" is not standardized, and is supported only by IE.

Example:

<http://www.htmq.com/style/ruby-align.shtml>

```
<ruby style="ruby-align: right"><rb>rubyruby<rt>ruby</ruby>
```

13)Name: ruby-overhang (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"ruby-overhang" is not standardized, and is supported only by IE.

Example:

<http://www.htmq.com/style/ruby-overhang.shtml>

```
<ruby style="ruby-overhang: auto"><rb>rb<rt>rubyruby</ruby>
```

14)Name: ruby-position (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"ruby-position" is not standardized, and is supported only by IE.

Example:

<http://www.htmq.com/style/ruby-position.shtml>

```
<ruby style="ruby-position: above"><rb>rubyruby<rt>ruby</ruby>  
<ruby style="ruby-position: inline"><rb>rubyruby<rt>ruby</ruby>
```

15)Name: scrollbar-3dlight-color (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"scrollbar-3dlight-color" is not standardized, and is supported only by IE.

Example:

```
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML//EN">
<html> <head>
<title>Scroll bar</title>
<STYLE TYPE="text/css">
<!--
Body {
scrollbar-3dlight-color:#000000;
scrollbar-arrow-color:#000000;
scrollbar-darkshadow-color:#ffffff;
scrollbar-face-color:#ea9e00;
scrollbar-highlight-color:#ffffff;
scrollbar-shadow-color:#000000;
scrollbar-track-color:#ffffff;
}
-->
</STYLE>
</head>

<body>
<div style="height: 5000px;">
Scrollbar
</div>
</body> </html>
```

16)Name: scrollbar-arrow-color (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"scrollbar-arrow-color" is not standardized, and is supported only by IE.

Example:

```
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML//EN">
<html> <head>
<title>Scroll bar</title>
<STYLE TYPE="text/css">
<!--
Body{
scrollbar-3dlight-color:#000000;
scrollbar-arrow-color:#000000;
scrollbar-darkshadow-color:#ffffff;
scrollbar-face-color:#ea9e00;
scrollbar-highlight-color:#ffffff;
scrollbar-shadow-color:#000000;
scrollbar-track-color:#ffffff;
}
-->
</STYLE>
</head>

<body>
<div style="height: 5000px;">
Scrollbar
</div>
</body> </html>
```

17)Name: scrollbar-base-color (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"scrollbar-base-color" is not standardized, and is supported only by IE.

Example:

```
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML//EN">
<html> <head>
<title>Scroll bar</title>
<STYLE TYPE="text/css">
<!--
Body{
scrollbar-3dlight-color:#000000;
scrollbar-arrow-color:#000000;
scrollbar-darkshadow-color:#ffffff;
scrollbar-face-color:#ea9e00;
scrollbar-highlight-color:#ffffff;
scrollbar-shadow-color:#000000;
scrollbar-track-color:#ffffff;
}
-->
</STYLE>
</head>

<body>
<div style="height: 5000px;">
Scrollbar
</div>
</body> </html>
```

18)Name: scrollbar-darkshadow-color (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"scrollbar-darkshadow-color" is not standardized, and is supported only by IE.

Example:

```
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML//EN">
<html> <head>
<title>Scroll bar</title>
<STYLE TYPE="text/css">
<!--
Body{
scrollbar-3dlight-color:#000000;
scrollbar-arrow-color:#000000;
scrollbar-darkshadow-color:#ffffff;
scrollbar-face-color:#ea9e00;
scrollbar-highlight-color:#ffffff;
scrollbar-shadow-color:#000000;
scrollbar-track-color:#ffffff;
}
-->
</STYLE>
</head>

<body>
<div style="height: 5000px;">
Scrollbar
</div>
</body> </html>
```

19)Name: scrollbar-face-color (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"scrollbar-face-color" is not standardized, and is supported only by IE.

Example:

```
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML//EN">
<html> <head>
<title>Scroll bar</title>
<STYLE TYPE="text/css">
<!--
Body{
scrollbar-3dlight-color:#000000;
scrollbar-arrow-color:#000000;
scrollbar-darkshadow-color:#ffffff;
scrollbar-face-color:#ea9e00;
scrollbar-highlight-color:#ffffff;
scrollbar-shadow-color:#000000;
scrollbar-track-color:#ffffff;
}
-->
</STYLE>
</head>

<body>
<div style="height: 5000px;">
Scrollbar
</div>
</body> </html>
```

20)Name: scrollbar-highlight-color (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"scrollbar-highlight-color" is not standardized, and is supported only by IE.

Example:

```
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML//EN">
<html> <head>
<title>Scroll bar</title>
<STYLE TYPE="text/css">
<!--
Body{
scrollbar-3dlight-color:#000000;
scrollbar-arrow-color:#000000;
scrollbar-darkshadow-color:#ffffff;
scrollbar-face-color:#ea9e00;
scrollbar-highlight-color:#ffffff;
scrollbar-shadow-color:#000000;
scrollbar-track-color:#ffffff;
}
-->
</STYLE>
</head>

<body>
<div style="height: 5000px;">
Scrollbar
</div>
</body> </html>
```

21)Name: scrollbar-shadow-color (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"scrollbar-shadow-color" is not standardized, and is supported only by IE.

Example:

```
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML//EN">
<html> <head>
<title>Scroll bar</title>
<STYLE TYPE="text/css">
<!--
Body{
scrollbar-3dlight-color:#000000;
scrollbar-arrow-color:#000000;
scrollbar-darkshadow-color:#ffffff;
scrollbar-face-color:#ea9e00;
scrollbar-highlight-color:#ffffff;
scrollbar-shadow-color:#000000;
scrollbar-track-color:#ffffff;
}
-->
</STYLE>
</head>

<body>
<div style="height: 5000px;">
Scrollbar
</div>
</body> </html>
```

22)Name: text-autospace (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"text-autospace" is not standardized, and is supported only by IE.

Example:

<http://www.htmq.com/style/text-autospace.shtml>

```
<p style="text-autospace: none;">偶 a 偶 a 偶 a 偶 a 偶 a 偶 a 偶 a 偶 a 偶 a</p>
<p style="text-autospace: ideograph-alpha;">偶 a 偶 a 偶 a 偶 a 偶 a 偶 a 偶 a 偶 a 偶 a</p>
```


27)Name: word-wrap (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"word-wrap" is not standardized, and is supported only by IE.

Example:

<http://www.htmq.com/style/word-wrap.shtml>

```
<p style="word-wrap: normal; width: 50px; background-color: #FC0;">
longlongword
</p>
<p style="word-wrap: break-word; width: 50px; background-color: #FC0;">
longlongword
</p>
```

28)Name: writing-mode (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"writing-mode" is not standardized, and is supported only by IE.

Example:

<http://www.htmq.com/style/writing-mode.shtml>

```
<p style="writing-mode: tb-rl;">This is a sample of writing-mode.</p>
```

29)Name: zoom (Property)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

"zoom" is not standardized, and is supported only by IE.

Example:

<http://www.htmq.com/style/zoom.shtml>

```
<p style="zoom: 250%;">This is a sample of zoom.</p>
```

5.2.2 Disregard of Standards

1) Name: a: link, a: hover (Property)

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

“a: link” should be located before “a: hover”. If the order is reverse, “a: hover” color should be same as “a: link” color. However, IE renders “a: hover” in “a: hover” color.

Example:

<http://aoi-sky.net/>

```
<html> <head>
<title></title>

<STYLE TYPE="text/css">
<!--
a:hover          { color:#000060; }
a:link,a:active,a:visited { color:#6666FF; }
-->
</STYLE>

<STYLE TYPE="text/css">
<!--
.sample1          {text-decoration:underline; };
.semicolon        {text-decoration:underline; }
-->
</STYLE>

<STYLE TYPE="text/css">
<!--
.sample2          {text-decoration:underline; }}
.parenthesis      {text-decoration:underline; }
-->
</STYLE>

<STYLE TYPE="text/css">
<!--
* html .csshack1 { color:#FF0000; }
html*.csshack2 { color:#00FF00; }
.csshack3 { _color:#0000FF; }
-->
</STYLE>

</head>

<body>

<div>
<a href=".">This is a sample of hover</a>
</div>

<div>
<span class="semicolon"> This is a sample of ";" after""</span>
</div>

<div>
<span class="parenthesis"> This is a sample of extra parenthesis</span>
</div>

<div>
<span class="csshack1"> This is a sample of CSS Hack</span>
</div>

<div>
<span class="csshack2"> This is a sample of CSS Hack</span>
</div>

<div>
<span class="csshack3"> This is a sample of CSS Hack</span>
</div>

</body> </html>
```

2) Name: ";" after "}" (CSS)

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

In CSS, “;” is used for separating properties between “{“ and “}”. IE does not regard “;” outside “{“ and “}” as error.

```
a:hover {text-decoration:none;};
```

Example:

<http://www.worldnavi.net/static/worldclock/>

```
<html> <head>
<title></title>

<STYLE TYPE="text/css">
<!--
a:hover           { color:#000060; }
a:link,a:active,a:visited { color:#6666FF; }
-->
</STYLE>

<STYLE TYPE="text/css">
<!--
.sample1         {text-decoration:underline; };
.semicolon       {text-decoration:underline; }
-->
</STYLE>

<STYLE TYPE="text/css">
<!--
.sample2         {text-decoration:underline; }}
.parenthesis     {text-decoration:underline; }
-->
</STYLE>

<STYLE TYPE="text/css">
<!--
* html .csshack1 { color:#FF0000; }
html*.csshack2  { color:#00FF00; }
.csshack3 { _color:#0000FF; }
-->
</STYLE>

</head>

<body>

<div>
<a href=".">This is a sample of hover</a>
</div>

<div>
<span class="semicolon"> This is a sample of ";" after""</span>
</div>

<div>
<span class="parenthesis"> This is a sample of extra parenthesis</span>
</div>

<div>
<span class="csshack1"> This is a sample of CSS Hack</span>
</div>

<div>
<span class="csshack2"> This is a sample of CSS Hack</span>
</div>

<div>
<span class="csshack3"> This is a sample of CSS Hack</span>
</div>

</body> </html>
```

3) Name: adjacent selector (CSS)

Status:

Internet Explorer	not supported
Firefox	supported

Description:

IE does not support adjacent selector.
<http://www.w3.org/TR/REC-CSS2/selector.html#adjacent-selectors>.

Example:

```
p + p {
    color: green;
}

<p>This text is black.</p>
<p>This text is green.</p>
```



Figure 6: Firefox

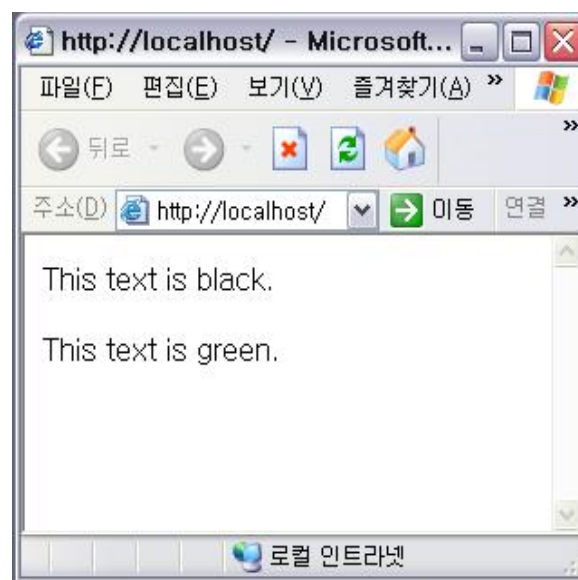


Figure 5: IE

4) Name: background-attachment (Property)

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

Background images scroll with frontal elements even if “background-attachment: fixed;” is specified to the image.

Example:

<http://www.parkcity.ne.jp/~chaichan/src/javasc06.htm>

```
<html> <head>
<title>background</title>
<STYLE TYPE="text/css">
<!--
Body {
background-position-x: 100px;
background-position-y: 100px;
background-image: url("logo.gif");
background-repeat: no-repeat;
}
-->
</STYLE>
</head>

<body>

<div style="height: 500px;">
background-position-x: 100px;<br>
background-position-y: 100px;<br>
background-attachment: fixed;<br>
background-image: url("logo.gif");<br>
background-repeat: no-repeat;
</div>

<H1 style="background-attachment: fixed; background-image: url('logo.gif');">
background-attachment: fixed;</H1>

<H1 style="position: fixed;">position: fixed;</H1>

<div style="height: 5000px;"></div>

</body> </html>
```

5) Name: child selector (CSS)

Status:

Internet Explorer	not supported
Firefox	supported

Description:

IE does not support child selector.

<http://www.w3.org/TR/REC-CSS2/selector.html#child-selectors>

Example:

```
div > p {  
  color: green;  
}  
  
<div>  
  <p>This text is green.</p>  
</div>
```

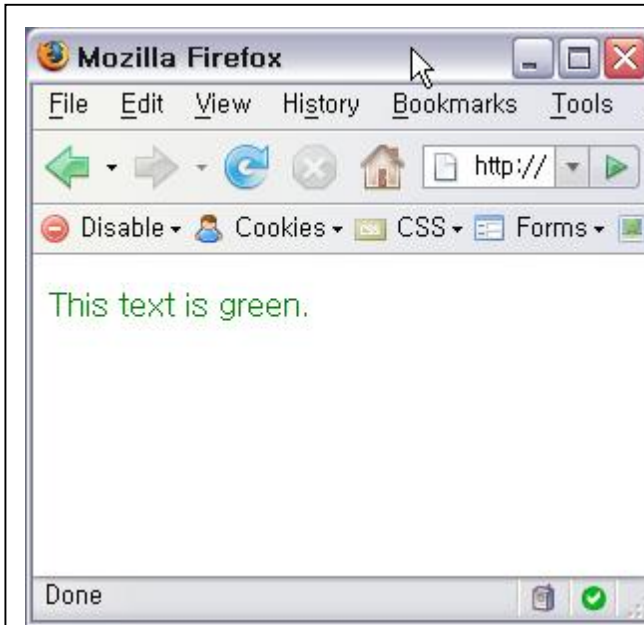


Figure 8:Firefox

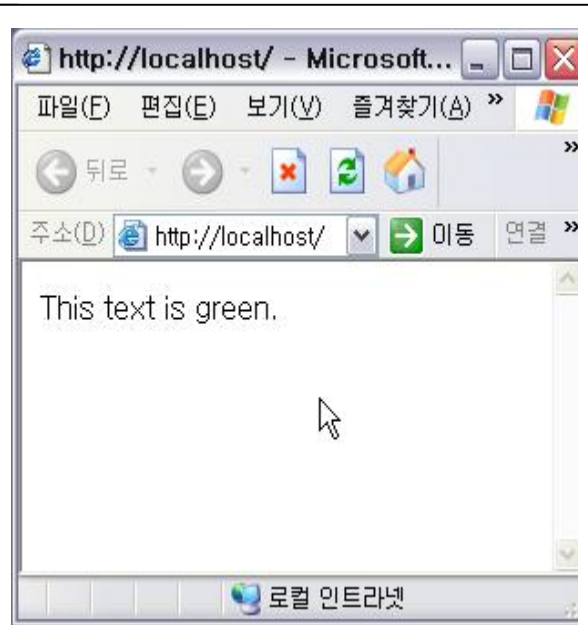


Figure 7:IE

6) Name: color expression (CSS)

Status:

Internet Explorer	not conformed
Firefox	partly conformed

Description:

IE recognizes 6 digits (without #) as color value. Firefox recognizes 6 digits (without #) as color value if the page is in HTML. If it is in XHTML, Firefox does not recognize.

Example:

<http://magazinebox.seesaa.net/index.html>

```

<?xml version="1.0" encoding="Shift_JIS"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="ja" lang="ja">
  <head>
  </head>
  <body>

  <div style="color: FFCC00">style="color: FFCC00" (missing #)</div>

  </body>
</html>

```

7) Name: color (<hr>) (Property)

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

The color of horizontal line <hr> can be changed by color attribute for IE. Use "border" and "background-color" instead.

Example:

http://www.japanprize.jp/2002_j2.htm

http://visions.jp/ex/ex02_02/index.html

```
<hr style="color: #F00">
```

8) Name: comment syntax

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

IE treats HTML comment syntax in CSS as CSS comment. Firefox ignores the syntax.

Example:

9) Name: CSS hack (CSS)

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

Only IE interprets properties with "* html", "html*", "_".

```
* html p { color:#FF0000; }
```

```
html*p { color:#FF0000; }
```

```
p { _color:#FF0000; }
```

Example:

```
<html> <head>
<title></title>

<STYLE TYPE="text/css">
<!--
a:hover          { color:#000060; }
a:link,a:active,a:visited { color:#6666FF; }
-->
</STYLE>

<STYLE TYPE="text/css">
<!--
.sample1          {text-decoration:underline; };
.semicolon        {text-decoration:underline; }
-->
</STYLE>

<STYLE TYPE="text/css">
<!--
.sample2          {text-decoration:underline; }}
.parenthesis      {text-decoration:underline; }
-->
</STYLE>

<STYLE TYPE="text/css">
<!--
* html .csshack1 { color:#FF0000; }
html*.csshack2 { color:#00FF00; }
.csshack3 { _color:#0000FF; }
-->
</STYLE>

</head>

<body>

<div>
<a href=".">This is a sample of hover</a>
</div>

<div>
<span class="semicolon"> This is a sample of ";" after"{"</span>
</div>

<div>
<span class="parenthesis"> This is a sample of extra parenthesis</span>
</div>

<div>
<span class="csshack1"> This is a sample of CSS Hack</span>
</div>

<div>
<span class="csshack2"> This is a sample of CSS Hack</span>
</div>

<div>
<span class="csshack3"> This is a sample of CSS Hack</span>
</div>

</body> </html>
```

10)Name: cursor (url) (Property)

Status:

Internet Explorer	not conformed
--------------------------	---------------

Firefox	conformed
----------------	-----------

Description:

W3C spec. says that a keyword (“auto” is typically used) after url is needed like “cursor: url(...) auto;” However, the cursor property will work without keyword in IE.

Example:

<http://www.htmq.com/style/cursor.shtml>

```
<span style="cursor: url(' cursor.cur');">This is a sample of cursor.</span>
```

11)Name: double float margin of IE (CSS)

Status:

Internet Explorer	buggy
Firefox	supported

Description:

IE puts double margin when direction of margin and float is same.

Example:

```
<p style="width: 4.5em; float: left; border:1px solid #f00; margin: 0 0 0 4.5em;">Floated box with no margin.</p>
```

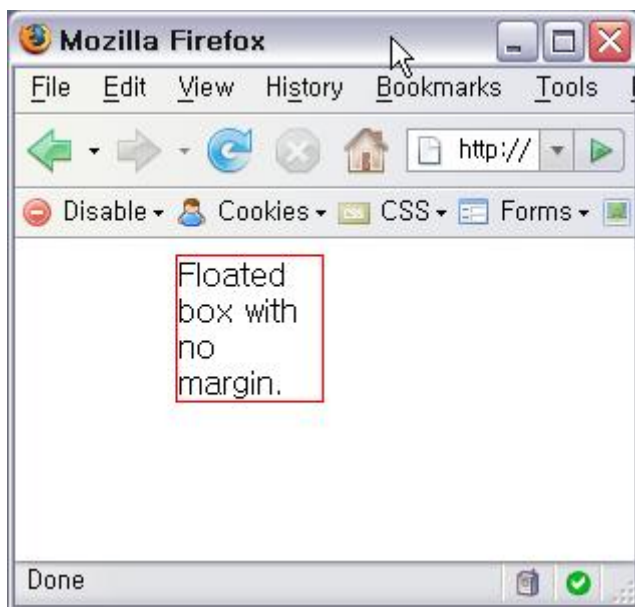


Figure 10:Firefox

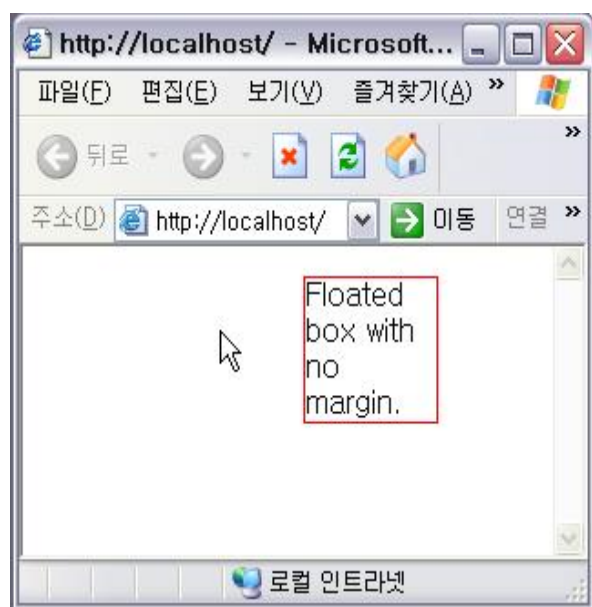


Figure 9:IE

12)Name: extra parensis (CSS)

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

If excess “}” exist in CSS, Firefox stops interpreting at the “}”. However, IE ignores the “}” and continues interpreting after the “}”.

p { color:#FF0000; } } (the second “}” is excess)

Example:

<http://magazinebox.seesaa.net/>

```

<html> <head>
<title></title>

<STYLE TYPE="text/css">
<!--
a:hover          { color:#000060; }
a:link,a:active,a:visited { color:#6666FF; }
-->
</STYLE>

<STYLE TYPE="text/css">
<!--
.sample1          {text-decoration:underline; };
.semicolon        {text-decoration:underline; }
-->
</STYLE>

<STYLE TYPE="text/css">
<!--
.sample2          {text-decoration:underline; }}
.parenthesis      {text-decoration:underline; }
-->
</STYLE>

<STYLE TYPE="text/css">
<!--
* html .csshack1 { color:#FF0000; }
html*.csshack2 { color:#00FF00; }
.csshack3 { _color:#0000FF; }
-->
</STYLE>

</head>

<body>

<div>
<a href=".">This is a sample of hover</a>
</div>

<div>
<span class="semicolon"> This is a sample of ";" after"{"</span>
</div>

<div>
<span class="parenthesis"> This is a sample of extra parenthesis</span>
</div>

<div>
<span class="csshack1"> This is a sample of CSS Hack</span>
</div>

<div>
<span class="csshack2"> This is a sample of CSS Hack</span>
</div>

<div>
<span class="csshack3"> This is a sample of CSS Hack</span>
</div>

</body> </html>

```

13)Name: float box 3pixel jog of IE (CSS)

Status:

Internet Explorer	buggy
Firefox	supported

Description:

Floated box of IE has 3 pixel jog at normal flow text.

Example:

```
<p style="width: 4.5em; float: left; border:1px solid #f00; margin: 0;">Floated box with no margin.</p>
<p style="margin-left: 5em;">This text has left margin.
This text has left margin.
This text has left margin.
This text has left margin.
This text has left margin.
This text has left margin.
This text has left margin.
This text has left margin.
</p>
```

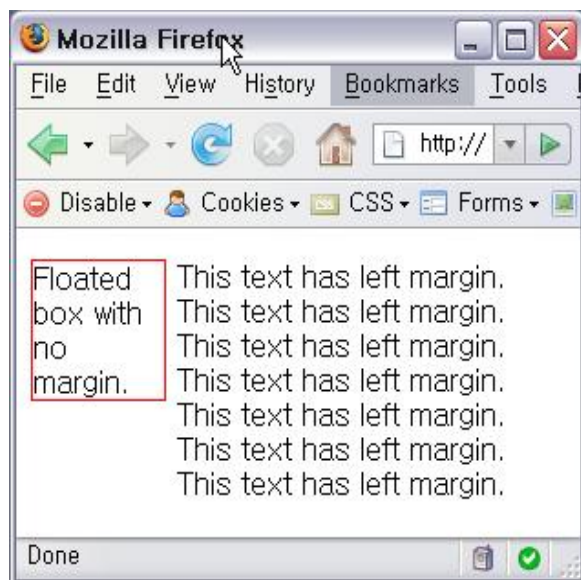


Figure 12:Firefox

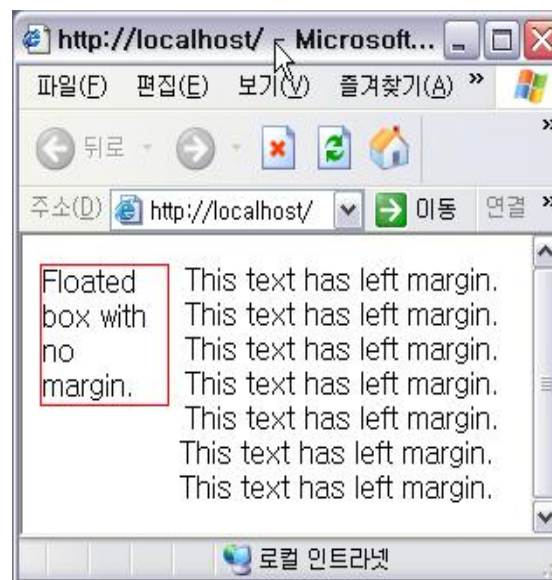


Figure 11:IE

14)Name: font size

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

The text with "font-size: small;" in quarks mode is rendered in default font size in IE. Firefox renders it in small size.

Example:

15)Name: font size

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

The text with "font-size: 80%" in td element in quirks mode is rendered in the 80% size of default font-size(16px) in IE.

Example:

16)Name: font-size-adjust (Property)

Status:

Internet Explorer	not supported
Firefox	supported

Description:

IE have not supported this property yet.

Example:

http://www.kyokko.co.jp/saiyou/saiyou_1.htm

```
<div style="font-size-adjust: 1.5;">This is a sample of font-size-adjust.</div>
</div>
```

17)Name: hover pseudo class

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

IE only applies "hover pseudo class" to A element, while Firefox applies it to every element.

Example:

18)Name: lang pseudo class (CSS)

Status:

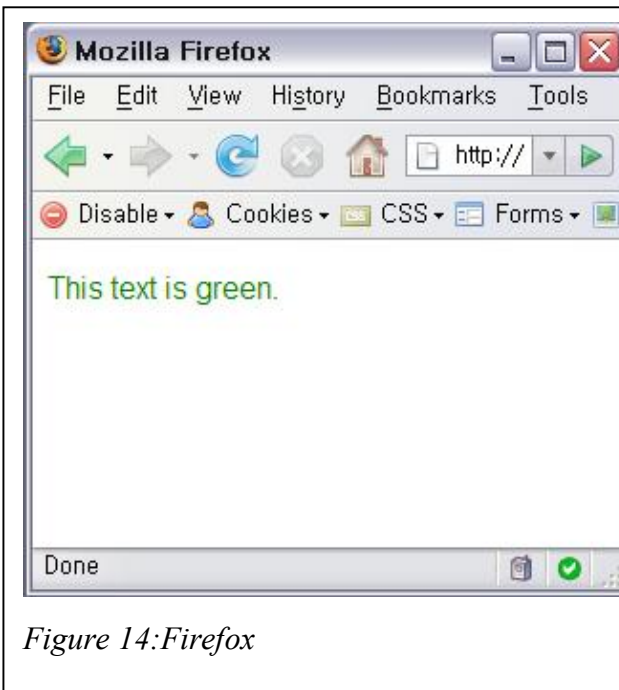
Internet Explorer	not supported
Firefox	supported

Description:

IE does not support lang pseudo class. <http://www.w3.org/TR/REC-CSS2/selector.html#lang>

Example:

```
p:lang(en) {  
    color: green;  
}  
  
<p lang="en">This text is green.</p>
```



19)Name: min/max-height/width (CSS)

Status:

Internet Explorer	not supported
Firefox	supported

Description:

IE does not support min/max-height/width property.

Example:

```
<p style="min-height: 5em; border: 1px solid #000;">The height of this box is 5em.</p>
```

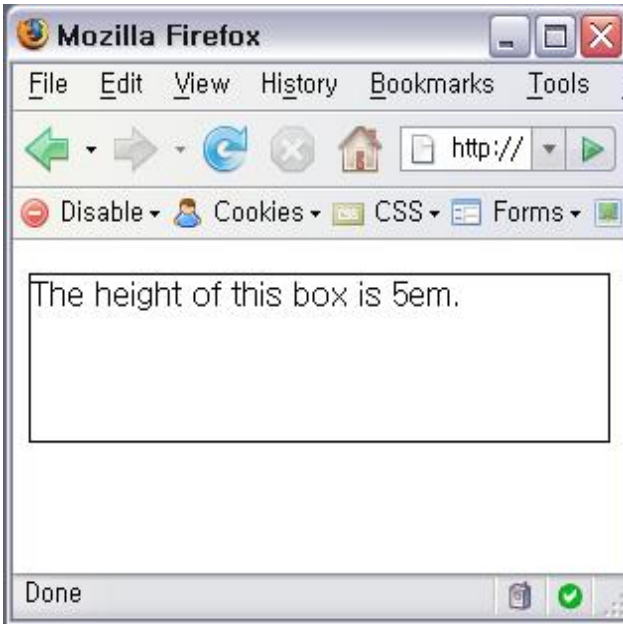


Figure 16:Firefox

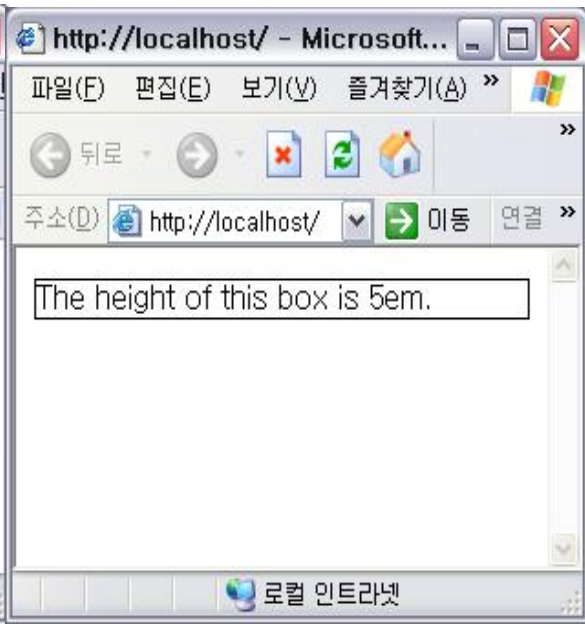


Figure 15:IE

20)Name: padding, border (Attribute and Properties)

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

IE calculates width of the element as “width + margin”, while Firefox do it as “width + margin + border + padding”.

Example:

21)Name: position: fixed; (Property)

Status:

Internet Explorer	not supported
Firefox	supported

Description:

IE have not supported this property yet.

Example:

<http://www.sun-inet.or.jp/~sien/sinnsotu1.htm>

http://www.ad-tech.co.jp/11_2.html

<http://www.info.police.pref.osaka.jp/ps/ikeda/top.htm>

<http://www.tctv.ne.jp/uoainii/page-tokyo.htm>

```
<html> <head>
<title>background</title>
<STYLE TYPE="text/css">
<!--
Body{
background-position-x: 100px;
background-position-y: 100px;
background-image: url("logo.gif");
background-repeat: no-repeat;
}
-->
</STYLE>
</head>

<body>

<div style="height: 500px;">
background-position-x: 100px;<br>
background-position-y: 100px;<br>
background-attachment: fixed;<br>
background-image: url("logo.gif");<br>
background-repeat: no-repeat;
</div>

<H1 style="background-attachment: fixed; background-image: url('logo.gif');
">
background-attachment: fixed;</H1>

<H1 style="position: fixed;">position: fixed;</H1>

<div style="height: 5000px;"></div>

</body> </html>
```

22)Name: quoted keywords

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

color expressions like "#000" in quarks mode is acceptable for IE, while Firefox ignores them.

Example:

23)Name: text-align (Property)

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

Block elements are centered by text-align property in IE, while Firefox does not center them.

Example:

```
<div style="text-align: center">
<table><tr><td>This is a sample of text-align</td></tr></table>
</div>
```

24)Name: text-decoration: blink; (Property)**Status:**

Internet Explorer	not supported
Firefox	supported

Description:

IE have not supported this property yet.

Example:

<http://card.vmko.com/>

<http://www.chinatea.co.jp/>

```
<span style="text-decoration: blink;">This is a sample of blink.</span>
```

25)Name: width, height (Property)**Status:**

Internet Explorer	not conformed
Firefox	conformed

Description:

IE automatically enlarge the parent node area when a child element is larger than the parent element, while Firefox does not.

Example:

```
<div style="width: 40px; background-color: #FC0" >sampletext</div>
</div>
```

26) Name: width & margin

Status:

Internet Explorer	not supported
Firefox	supported

Description:

Use of "width: auto;" in quarks mode have not been supported by IE yet.

Example:

27) Name: white space

Status:

Internet Explorer	not supported
Firefox	supported

Description:

Use of "white space: pre;" in quarks mode have not been supported by IE yet

Example:

28) Name: z-index (Property)

Status:

Internet Explorer	not conformed
Firefox	conformed

Description:

In order to designate a negative value for z-index, the reference (z-index = 0) has to be designated. This designation can be safely omitted in IE. If the designation is omitted in Firefox, however,

none of the elements in which z-index is designated will be displayed.

Example:

- <http://www.hashima-gifu.ed.jp/~hashimaj/>
- <http://seiho-yakyuubu.com/>
- <http://doitu-tei.web.infoseek.co.jp/pizzamenu.htm>
- <http://park7.wakwak.com/~maika/sub3a.html>
- http://www.toyotomi.jp/products/oil_stove/index.html
- <http://elm.fukuyama.hiroshima-u.ac.jp/index.html>
- <http://www.fujizouen.jp/tsuda-kouenannai.html>
- <http://www.tokyo.plo.jda.go.jp/>
- <http://www.geocities.jp/terrytc2006/gallery.html>
- <http://www.numaken.co.jp/grandfort-sakae.htm>

```
<html> <head>
<title></title>
</head>

<body>
<div style="z-index: 1; position:absolute; top: 30px;">z-Index problem</div>
<div style="z-index: -1; position:absolute; top: 80px;"> style="z-index: -1;" </div>
<div style="z-index: 2; position:absolute; top: 130px;"> style="z-index: 2;" </div>

</body> </html>
```

29)Name: z-index of windowed, windowless element (Property)

Status:

Internet Explorer	buggy
Firefox	supported

Description:

windowed element is rendered on the every windowless element regardless of z-index (<http://support.microsoft.com/default.aspx?scid=kb;en-us;177378>).

Example:

```

ul {
    margin: 0;
}

<ul>
    <li>set margin 0 pixel</li>
    <li>set margin 0 pixel</li>
    <li>set margin 0 pixel</li>
    <li>set margin 0 pixel</li>
    <li>set margin 0 pixel</li>
</ul>

```



Figure 18:Firefox

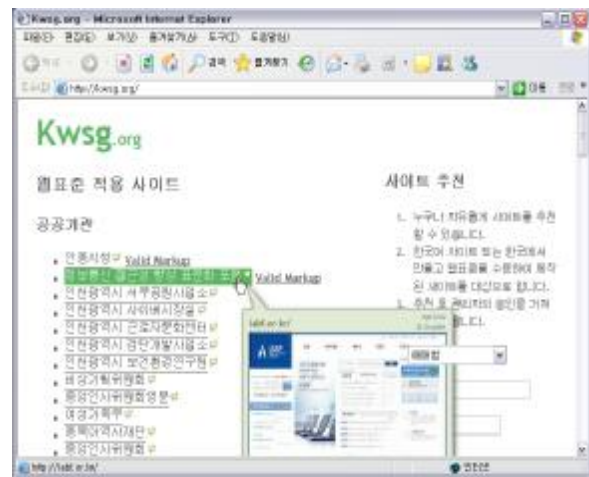


Figure 17:IE

5.2.3 Different Interpretation of Standards

1) Name: margin of <p> (Property)

Status:

Internet Explorer	(different margin)
Firefox	(different margin)

Description:

Default margin of the p element is different between IE and Firefox.

Example:

<http://doitu-tei.web.infoseek.co.jp/pizzamenu.htm>

```

<html> <head>
<title></title>
</head>

<body>


<p style="position:absolute; top: 150px; left: 280px;">p margin</p>

<table border="1">
  <tr><td valign="top" align="left" colspan="2">Test</td></tr>
  <tr><td valign="top" align="left" rowspan="2">
    
  </td><td>test</td>
</tr>
<tr><td>test</td></tr>
</table>

</body> </html>

```

2) Name: nowrap, white-space, width (Attribute and Property)

Status:

Internet Explorer	fold the text
Firefox	does not fold the text

Description:

IE fold the text in a cell of a table, which is designated “nowrap' and 'width' (by pixels)” or “white-space' and 'width' (by pixels)” and longer than the width of the cell. Firefox does not fold it.

Example:

<http://www.wowow.co.jp/schedule/>

<http://www.seijinkai.jp/hospital.html>

```

<table border="1">
  <col width="100">
  <col>
  <tr>
    <td nowrap>Example of nowrap and width;Example of nowrap and width;Example of
    nowrap and width;
  </td>
    <td>aaa</td>
  </tr>
</table>

```

3) Name: gray (Other, color name)

Status:

Internet Explorer	gray, lightgrey, darkgray
Firefox	gr[ae]y, lightgr[ae]y, darkgr[ae]y

Description:

IE only accepts the color expression, gray, lightgrey, darkgray. Firefox accepts gray and grey.

Example:

```
<div>
  <span style="color: gray">gray</span>
  <span style="color: grey">grey</span>
  <span style="color: lightgray">lightgray</span>
  <span style="color: lightgrey">lightgrey</span>
  <span style="color: darkgray">darkgray</span>
  <span style="color: darkgrey">darkgrey</span>
</div>
```

4) Name: vertical-align of in a table (Property)

Status:

Internet Explorer	ignored
Firefox	supported

Description:

IE ignores vertical-align property of .

Example:

<http://bpstore.nikkeibp.co.jp/nsp/main.html>

```
<table>
  <tr>
    <td><a style="vertical-align: top;"></a>
    </td>
    <td width="100">test test test test test test test test test test</td>
  </tr>
</table>
```

5.3 Behavior (ECMAScript and DOM)

The details of the discrepancies of ECMAScript and DOM are described in this section. The classification of discrepancies and subsection organization are similar to section 5.1. The same description structure as mentioned in section 5.1 is also utilized in this section.

5.3.1 Implementation-unique Web elements

1) Name: attachEvent

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is an IE-specific function.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body>
Binds the specified function to an event that fires on the object when the function
is called.
<p><strong>Syntax</strong></p>
<p>bSuccess = object.attachEvent(sEvent, fpNotify)</p>
<p><strong>Parameters</strong></p>
<p><em>sEvent</em> Required. String that specifies any of the standard DHTML events.
<br>
<em>fpNotify</em> Required. Pointer that specifies the function to be called
when sEvent fires. </p>
<p><strong>Return Value</strong></p>
<p>Boolean. Returns true if the function is bound successfully to the event, or
false otherwise.</p>
<p></p>
<input type="button" name="btn1" value="Set">
<input type="button" name="btn2" value="Cleaning">
<SCRIPT LANGUAGE="JavaScript">
var btn1 = document.getElementsByName("btn1");
var btn2 = document.getElementsByName("btn2");
alert("xxx");
btn1.attachEvent ('onMouseDown', Hilite);
btn2.attachEvent ('onMouseDown', Restore);
alert("xxx");
function Hilite()
{
    document.write("setting");
}
function Restore()
{
    document.write("Cleaning");
}
</SCRIPT>
</body>
</html>
```

2) Name: detachEvent

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is an IE-specific function.

Example:

3) Name: document.getSelection

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is a Javascript 1.2 function.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML
4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html;
charset=gb2312">
<title>document.getSelection</title>
</head>
<body onResize="alert(document.getSelection());">
This is an test page.<br><br>
1. This will be selected and shown.<br>
2. Please change the size of this window.<br>
</body>
</html>
```

4) Name: event.offsetX, offsetY

Status:

Internet Explorer	supported
--------------------------	-----------

Firefox	not supported
----------------	---------------

Description:

This is an IE-specific function. (event).pageX and pageY are available in Firefox.

Example:

```

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>event.offsetX, offsetY</title>
</head>
<body>
<table border="1" width="200">
  <tr>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
  </tr>
  <tr>
    <td><input type="button" name="Submit2" value="Event.offsetX offsetY"
onClick="alert(event.offsetX.toString()+ '/' +event.offsetY.toString())"></td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
  </tr>
  <tr>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td><input type="button" name="Submit" value="Event.PageX PageY"
onClick="alert(event.pageX.toString()+ '/' +event.pageY.toString())"></td>
  </tr>
</table>

```

5) Name: height

Status:

Internet Explorer	supported
Firefox	not supported

Description:

IE supports changing the height of a table by "element.height='10'", while FF not.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Element.height</title>
</head>
<body>
<table width="250" border="0" cellspacing="0" cellpadding="0">
  <tr>
    <td>1</td>
    <td>2</td>
    <td>3</td>
    <td>4</td>
  </tr>
  <tr>
    <td>5</td>
    <td onmouseover="this.height='50';this.backgroundColor='#FF0000';"
onmouseout="this.height='';this.backgroundColor='';">6</td>
    <td>7</td>
    <td>8</td>
  </tr>
  <tr>
    <td>9</td>
    <td>10</td>
    <td>11</td>
    <td>12</td>
  </tr>
</table>
</body>
</html>
```

6) Name: innerText

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is an IE-specific function.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Object.innerHTMLHtml</title>
</head>
<body>
<table width="450" border="0" cellspacing="0" cellpadding="0">
  <tr>
    <td>1</td>
    <td>2</td>
    <td>3</td>
    <td>4</td>
  </tr>
  <tr>
    <td>5</td>
    <td onmouseover="this.height='50';this.backgroundColor=#FF0000;"
onmouseout="this.height='';this.backgroundColor='";">6</td>
    <td>7</td>
    <td width="220" bgcolor="#CCCCCC" onclick="alert(this.innerHTML);"><strong><em>click
it!</em></strong></td>
  </tr>
  <tr>
    <td>9</td>
    <td>10</td>
    <td>11</td>
    <td bgcolor="#fefe" onclick="alert(this.innerHTML);"><strong><font color="#0000FF"><em>click
it!</em></font></strong></td>
  </tr>
</table>
</body>
</html>
```

7) Name: navigator.javaEnabled

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is a Javascript 1.1 function.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>
<body>
<p><strong>navigator Object reference</strong><br>
<br>
Properties Description<br>
appCodeName--Get browser Code Name<br>
appMinorVersion--Get browser Minor Version<br>
appName--Get browser Name<br>
appVersion--Get browser Version<br>
browserLanguage--Get browser language<br>
cookieEnabled 获取客户端的永久 cookie 是否在浏览器中启用。永久 cookies 是储存在客户端计算机上的。
<br>
cpuClass 获取指示 CPU 等级的字符串。 <br>
onLine 获取表明系统是否处于全局脱机模式的值。 <br>
platform--Get system name<br>
systemLanguage -- Get system default language<br>
userAgent 获取等同于 HTTP 用户代理请求头的字符串。 <br>
userLanguage 获取操作系统的自然语言设置。 <br>
</p>
<p>Setings Description<br>
plugins -- Get all embed object settings in document</p>
<p>Method Description<br>
javaEnabled--Get java is enabled or not.<br>
taintEnabled 返回是否允许数据污点。 </p>
<p>Object Description<br>
userProfile 提供了允许脚本对用户配置信息请求读取访问并执行读取操作的方法。 <br>
<br>
<br>
<strong>Testing Code</strong><br>
<input type="button" name="Submit" value="Click Me - navigator.javaEnabled()"
onClick="alert('navigator.javaEnabled='+navigator.javaEnabled())">
<br>
<input type="button" name="Submit" value="Click Me - navigator.mimeTypes"
onClick="alert('navigator.mimeTypes='+navigator.mimeTypes)">
mimeTypes is an object Array.
<br><input type="button" name="Submit" value="Click Me - navigator.plugins"
onClick="alert('navigator.mimeTypes='+navigator.plugins)">plugins is an object Array.
<br>
<br>
</p>
</body>
</html>
```

8) Name: navigator.mimeTypes

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is a Javascript 1.1 function.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>
<body>
<p><strong>navigator Object reference</strong><br>
<br>
Properties Description<br>
appCodeName--Get browser Code Name<br>
appMinorVersion--Get browser Minor Version<br>
appName--Get browser Name<br>
appVersion--Get browser Version<br>
browserLanguage--Get browser language<br>
cookieEnabled 获取客户端的永久 cookie 是否在浏览器中启用。永久 cookies 是储存在客户端计算机上的。
<br>
cpuClass 获取指示 CPU 等级的字符串。 <br>
onLine 获取表明系统是否处于全局脱机模式的值。 <br>
platform--Get system name<br>
systemLanguage -- Get system default language<br>
userAgent 获取等同于 HTTP 用户代理请求头的字符串。 <br>
userLanguage 获取操作系统的自然语言设置。 <br>
</p>
<p>Setings Description<br>
plugins -- Get all embed object settings in document</p>
<p>Method Description<br>
javaEnabled--Get java is enabled or not.<br>
taintEnabled 返回是否允许数据污点。 </p>
<p>Object Description<br>
userProfile 提供了允许脚本对用户配置信息请求读取访问并执行读取操作的方法。 <br>
<br>
<br>
<strong>Testing Code</strong><br>
<input type="button" name="Submit" value="Click Me - navigator.javaEnabled()"
onClick="alert('navigator.javaEnabled='+navigator.javaEnabled())">
<br>
<input type="button" name="Submit" value="Click Me - navigator.mimeTypes"
onClick="alert('navigator.mimeTypes='+navigator.mimeTypes)">
mimeTypes is an object Array.
<br><input type="button" name="Submit" value="Click Me - navigator.plugins"
onClick="alert('navigator.mimeTypes='+navigator.plugins)">plugins is an object Array.
<br>
<br>
</p>
</body>
</html>
```

9) Name: navigator.plugins

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is a Javascript 1.1 function.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>
<body>
<p><strong>navigator Object reference</strong><br>
<br>
Properties Description<br>
appCodeName--Get browser Code Name<br>
appMinorVersion--Get browser Minor Version<br>
appName--Get browser Name<br>
appVersion--Get browser Version<br>
browserLanguage--Get browser language<br>
cookieEnabled 获取客户端的永久 cookie 是否在浏览器中启用。永久 cookies 是储存在客户端计算机上的。
<br>
cpuClass 获取指示 CPU 等级的字符串。 <br>
onLine 获取表明系统是否处于全局脱机模式的值。 <br>
platform--Get system name<br>
systemLanguage -- Get system default language<br>
userAgent 获取等同于 HTTP 用户代理请求头的字符串。 <br>
userLanguage 获取操作系统的自然语言设置。 <br>
</p>
<p>Setings Description<br>
plugins -- Get all embed object settings in document</p>
<p>Method Description<br>
javaEnabled--Get java is enabled or not.<br>
taintEnabled 返回是否允许数据污点。 </p>
<p>Object Description<br>
userProfile 提供了允许脚本对用户配置信息请求读取访问并执行读取操作的方法。 <br>
<br>
<br>
<strong>Testing Code</strong><br>
<input type="button" name="Submit" value="Click Me - navigator.javaEnabled()"
onClick="alert('navigator.javaEnabled='+navigator.javaEnabled())">
<br>
<input type="button" name="Submit" value="Click Me - navigator.mimeTypes"
onClick="alert('navigator.mimeTypes='+navigator.mimeTypes)">
mimeTypes is an object Array.
<br><input type="button" name="Submit" value="Click Me - navigator.plugins"
onClick="alert('navigator.mimeTypes='+navigator.plugins)">plugins is an object Array.
<br>
<br>
</p>
</body>
</html>
```

10)Name: (object).arity

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is a Javascript 1.2 function.

Example:

11)Name: (object).captureEvents

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is a Javascript 1.2 function.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body onload="reg();">
Registers the window to capture all events of the specified type.
<p>[edit] Syntax <br>
window.captureEvents(eventType) <br>
eventType is one of the following values: Event.ABORT, Event.BLUR, Event.CLICK,
Event.CHANGE, Event.DBLCLICK, Event.DRAGDDROP, Event.ERROR, Event.FOCUS,
Event.KEYDOWN,
Event.KEYPRESS, Event.KEYUP, Event.LOAD, Event.MOUSEDOWN, Event.MOUSEMOVE,
Event.MOUSEOUT,
Event.MOUSEOVER, Event.MOUSEUP, Event.MOVE, Event.RESET, Event.RESIZE, Event.SELECT,
Event.SUBMIT, Event.UNLOAD. <br>
<br>
setCapture Method in IE.</p>

<p>Example:click anywhere on this page.</p>
<script>
function reg() {
window.captureEvents(Event.CLICK);
window.onclick = page_click;
}

function page_click(){
alert('page click event detected!');
}
</script>
</body>
</html>
```

12)Name: (object).routeEvent

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is a Javascript 1.2 function.

Example:

13)Name: outerHTML

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is an IE-specific function.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Object.outerTextinnerHtml</title>
</head>
<body>
<table width="450" border="0" cellspacing="0" cellpadding="0">
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td onmouseover="this.height='50';this.bgColor=#FF0000;" onmouseout="this.height='';this.bgColor='';">6</td>
<td>7</td>
<td width="220" bgcolor="#CCCCCC" onclick="alert(this.outerText);"><strong><em>click it!</em></strong></td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>11</td>
<td bgcolor="#fefe" onclick="alert(this.outerHTML);"><strong><font color="#0000FF"><em>click
it!</em></font></strong></td>
</tr>
</table>
</body>
</html>
```

14)Name: outerWidth, outerHeight in window.open

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is a Javascript 1.2 function.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>
<script type="text/javascript">
var WindowObjectReference; // global variable
function openRequestedPopup()
{
    WindowObjectReference = window.open("http://www.google.com/", "DescriptiveWindowName",
"outerWidth=400pt,outerHeight=300pt, resizable=no,scrollbars=yes,status=no");
}
</script>

<body>
<p>outerWidth,outerHeight in window.open<br>
    innerWidth,innerHeight</p>
<p onClick="openRequestedPopup()">ClickMe Test outerWidth & outerHeight</p>
</body>
</html>
```

15)Name: (object).outerText

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is an IE-specific function.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Object.outerTextinnerHtml</title>
</head>
<body>
<table width="450" border="0" cellspacing="0" cellpadding="0">
  <tr>
    <td>1</td>
    <td>2</td>
    <td>3</td>
    <td>4</td>
  </tr>
  <tr>
    <td>5</td>
    <td onmouseover="this.height='50';this.backgroundColor='#FF0000';" onmouseout="this.height='';this.backgroundColor='';">6</td>
    <td>7</td>
    <td width="220" bgcolor="#CCCCCC" onclick="alert(this.outerText);"><strong><em>click it!</em></strong></td>
  </tr>
  <tr>
    <td>9</td>
    <td>10</td>
    <td>11</td>
    <td bgcolor="#fefefe" onclick="alert(this.outerHTML);"><strong><font color="#0000FF"><em>click
it!</em></font></strong></td>
  </tr>
</table>
</body>
</html>
```

16)Name: screen.pixelDepth

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is a Javascript 1.2 function.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body>
<p>screen.pixelDepth</p>
<p>
  <input type="submit" name="Submit" value="click me" onclick="alert(screen.pixelDepth);">
</p>
</body>
</html>
```


17)Name: toSource

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is a Javascript 1.3 function.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>toSource</title>
</head>
<body>
<INPUT TYPE="BUTTON" VALUE="view source" onClick= 'window.location = "view-source:" +
window.location.href>
<input type="button" onClick="document.toSource();" value="toSource">
</body>
</html>
```

18)Name: valueOf

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is a Javascript 1.1 function.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>
<body>
<p>Object.prototype.valueOf ( )</p>
<p>
<input type="submit" name="Submit" value="click me" onClick="alert(window.innerWidth.valueOf());">
</p>
</body>
</html>
```

19) Name: window.event

Status:

Internet Explorer	supported
Firefox	not supported

Description:

This is an IE-specific function.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body>
window.event<br>
<br>
<input type="submit" name="Submit" value="Click me get window.event.clientX"
onClick="alert(window.event.clientX);">
</body>
</html>
```

20) Name: watch/unwatch

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is a Javascript 1.3 function.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body>
<p>Watch/unwatch</p>

<script language="JavaScript">

var o = {p:1};
o.watch("p",
  function (id,oldval,newval) {
    document.writeln("o." + id + " changed from "
      + oldval + " to " + newval);
    return newval;
  });

o.p = 2;
o.p = 3;
delete o.p;
o.p = 4;

o.unwatch('p');
o.p = 5;

</script>
<p>&nbsp;</p>
<p>&nbsp;</p>
</body>
</html>
```

21)Name: window.find

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is a Javascript 1.2 function.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body>
window.find<br>
<br>
<input type="submit" name="Submit" value="find" onClick="window.find('window');">
</body>
</html>
```

22)Name: window.[inner|outer][Width|Height]

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is a Javascript 1.2 function.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body>
window.[inner|outer][Width|Height]<br>
<br>
<input type="submit" name="Submit" value="Clickme Window.innerWidth" onClick="alert(window.innerWidth);"><br>
<input type="submit" name="Submit" value="Clickme Window.innerHeight"
onClick="alert(window.innerHeight);"><br>
<input type="submit" name="Submit" value="Clickme Window.outerWidth" onClick="alert(window.outerWidth);"><br>
<input type="submit" name="Submit" value="Clickme Window.outerHeight" onClick="alert(window.outerHeight);">
</body>
</html>
```

5.3.2 Disregard of Standards

1) Name: border color change

Status:

Internet Explorer	supported
Firefox	not supported

Description:

IE & FF both support (object).style.borderStyle/borderColor/borderWidth="xx".

IE & FF both support (object).border = "XX"

IE supports (object).borderColor = "XX", while FF not support.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
<script language="JavaScript">
  var i = 0;
</script>
</head>
<body>
this.border=++;this.borderColor='red';
<table width="350" border="0" cellspacing="1" cellpadding="0"
onClick="this.border=++;this.borderColor='red';">
  <tr bgcolor="#CCCCCC">
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
  </tr>
</table>
<br>
<br>this.style.borderColor='blue';this.style.borderWidth=++;this.style.borderStyle='dashed'
<table width="350" border="0" cellspacing="1" cellpadding="0" b
onClick="this.style.borderColor='blue';this.style.borderWidth=++;this.style.borderStyle='dashed'">
  <tr bgcolor="#CCCCCC">
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
  </tr>
</table>
<br>
<br>this.style.border=0.2cm groove pink'&quot;<br>
<table width="350" border="0" cellspacing="1" cellpadding="0" b onClick="this.style.border=0.2cm
groove pink dashed">
  <tr bgcolor="#CCCCCC">
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
  </tr>
</table>
<br>
<br>
<table width="350" border="0" cellspacing="1" cellpadding="0" b onClick="this.style.borderLeft=0.2cm
groove yellow">
  <tr bgcolor="#CCCCCC">
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
  </tr>
</table>
<br>
<br>this.style.borderRightColor='blue';this.style.borderRightWidth=++;this.style.borderRightStyle='dashed'
,
<table width="350" border="0" cellspacing="1" cellpadding="0" b
onClick="this.style.borderRightColor='blue';this.style.borderRightWidth=++;this.style.borderRightStyle='d
ashed'">
  <tr bgcolor="#CCCCCC">
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
  </tr>
</table>
also same to left,top and bottom
</body>
</html>
```

2) Name: comment-out ("//")

Status:

Internet Explorer	not supported correctly*
Firefox	Supported

* IE supports some incorrect syntax of comment-out, this causes discrepancy.

Description:

"/--->" and "--->" are regarded as "//-->" in IE, but they are evaluated as syntax errors in FF .

Example:

<https://ag.jal.co.jp/jalcard/FrameworkServlet/jalc/KO01/POPUP/>

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>comment out</title>
</head>
<body>
comment out
<script language="JavaScript">
  <!--
    document.bgColor = "Red";
  -->
</script>
<script language="JavaScript">
  <!--
    document.fgColor = "blue";
  //-->
</script>
<script language="JavaScript">
  <!--
    document.bgColor = "yellow";
  /-->
</script>
</body>
</html>
```

3) Name: document.URL

Status:

Internet Explorer	Not supported
Firefox	supported

Description:

If we execute a script like "document.URL='http://www.hoge.com'", IE will move forward to "http://www.hoge.com", FF will not. document.URL is read-only property. Both IE & FF support a script like "document.location.href='http://www.hoge.com'"

Example:

<http://www.cit-co.com>

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>
<body>
<script language="">
    document.write(document.URL);
</script>
<input type="button" value="set document.URL" onClick="document.URL='http://www.google.com'">
<br>
<input name="button" type="button" onClick="document.location.href='http://www.google.com'"
value="set document.location.href">
</body>
</html>
```

4) Name: form name and id (1)

Status:

Internet Explorer	supported
Firefox	not supportd

Description:

When a <form> has name and id attributes, IE can access to the form with document."name" and document."id", but FF can access to the form only with document."name".

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>
<body>
<form action="http://www.google.com" method="post" name="formName" id="formID">
    <input name="inputTxt" id="inputTxtID" type="text" value="Testing msg!"><input name="inputChb"
id="inputChb" type="checkbox" checked><input name="inputBtn" id="inputBtn" type="button">
</form>
<input type="button" value="getformname" onClick="document.formName.submit();"><br>
<input type="button" value="getformid" onClick="document.formID.submit();"><br>
<input type="button" value="getformbyname"
onClick="document.getElementsByName('formName').submit();"><br>
<input type="button" value="getformbyid" onClick="document.getElementById('formID').submit();"><br>
<input type="button" value="getinputbyname"
onClick="alert(document.getElementsByName('inputTxt').value)"><br>
<input type="button" value="getinputbyid"
onClick="alert(document.getElementById('inputTxtID').value)"><br>
<input type="button" value="change type" onClick="document.getElementById('inputTxtID').type='button'">
</body>
</html>
```


5) Name: form name and id (2)

Status:

Internet Explorer	supported
Firefox	not supported

Description:

When a <form> has a name attribute, IE can access to the form with both getElementById and getElementsByName but FF, can access to the form with only getElementsByName. getElementsByName and getElementById both are DOM function.

Example:

6) Name: form type change

Status:

Internet Explorer	not supported
Firefox	supported

Description:

IE does not support changing the value of "(object).type" to change the type of form elements.

Example:

7) Name: framename case-sensitive

Status:

Internet Explorer	not supported
Firefox	Supported

Description:

In order to access a frame, frame name is non case-sensitive in IE, case-sensitive in FF . frame name should be case-sensitive.

Example:

frameMain:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN"
"http://www.w3.org/TR/html4/frameset.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<frameset id="TopDown" rows="150,*" cols="*" frameborder="Yes" border="1"
framespacing="0">
  <frame src="frameTop.htm" id="topFrameID" name="topFrame" scrolling="NO" >
  <frameset id="LeftRight" rows="*" cols="150,*" framespacing="0" frameborder="Yes"
border="1">
    <frame src="frameLeft.htm" id="leftFrameID" name="leftFrame" scrolling="NO" >
    <frame src="frameCenter.htm" id="centerFrameID" name="centerFrame">
  </frameset>
</frameset>
<noframes><body>

</body></noframes>
</html>
```

frameTop:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body>
<table width="350" border="0" cellpadding="0" cellspacing="0">
  <tr>
    <td valign="top">
      <input type="button" name="Submit22" value=" ↑ "
onClick="parent.TopDown.rows=0,*;">
    </td>
  </tr>
</table>
<br>
<frame src="frameTop.htm" id="topFrameID"
name="topFrame"
scrolling="NO" >
</body>
</html>
```

frameLeft:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body>
<table width="100%" border="0" cellspacing="0" cellpadding="0">
  <tr>
    <td align="left">
      <input type="button" name="Submit2" value="←" onClick="parent.LeftRight.cols=0,*;">
    </td>
  </tr>
</table>
<br>
<iframe src="frameLeft.htm" id="leftFrameID"
name="leftFrame"
scrolling="NO" ><br>
</body>
</html>
```

frameCenter:

```

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body>
<table width="100" border="0" cellspacing="0" cellpadding="0">
  <tr>
    <td height="21">
      <input type="button" name="Submit3" value="→"
onClick="parent.LeftRight.cols='150,*';">
      <input type="button" name="Submit2" value="↓ "
onClick="parent.TopDown.rows='150,*';"> </td>
    </tr>
  </table>
  &lt;frame src="frameCenter.htm" id="centerFrameID"
name="centerFrame"&gt;
  <br>
  <input type="button" name="Submit" value="Change Top bgColor by Name"
onClick="parent.frames('topFrame').document.bgColor='red';">
  &lt;input type="button" name="Submit" value="Change Top
bgColor" onlick="parent.frames('topFrame').document.bgColor='red';&gt;&gt;<br>
  <input type="button" name="Submit4" value="Change Top bgColor by Name"
onClick="parent.topFrame.document.bgColor='blue';">
  &lt;input type="button" name="Submit" value="Change Top
bgColor" onlick="parent.topFrame.document.bgColor='blue';&gt;&gt;<br>
  <input type="button" name="Submit5" value="Change Top bgColor by Name"
onClick="parent.topframe.document.bgColor='green';">
  &lt;input type="button" name="Submit" value="Change Top
bgColor" onlick="parent.topframe.document.bgColor='green';&gt;&gt;<br>
  <br>
  <input type="button" name="Submit52" value="Change Top bgColor by id"
onClick="parent.topFrameID.document.bgColor='yellow';">
  &lt;input type="button" name="Submit52" value="Change
Top bgColor by id"
onlick="parent.topFrameID.document.bgColor='yellow';&gt;&gt;<br>
  <input type="button" name="Submit522" value="Change Top bgColor by id"
onClick="parent.topframeid.document.bgColor='yellow';">
  &lt;input type="button" name="Submit52" value="Change
Top bgColor by id"
onlick="parent.topframeid.document.bgColor='yellow';&gt;&gt;<br>
  <br>
  <input type="button" name="Submit5222" value="Change Top bgColor by id"
onClick="parent.frames(0).document.bgColor='yellow';">
  &lt;input type="button" name="Submit52" value="Change
Top bgColor by id"
onlick="parent.frames(0).document.bgColor='yellow';&gt;&gt;<br>
  <input type="button" name="Submit5222" value="Change Top bgColor by id"
onClick="parent.frames('topFrame').document.bgColor='green';">
  &lt;input type="button" name="Submit52" value="Change
Top bgColor by id"
onlick="parent.frames('topFrame').document.bgColor='green';&gt;&gt;
</body>
</html>

```

8) Name: frame name and id

Status:

Internet Explorer	supported
Firefox	not supportd

Description:

When a <frame> has name and id attribute, IE can access to the frame with both

document."frame name" and document."frame id", and FF can access to the frame with only document."frame name".

Example:

frameMain:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN"
"http://www.w3.org/TR/html4/frameset.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<frameset id="TopDown" rows="150,*" cols="*" frameborder="Yes" border="1"
framespacing="0">
  <frame src="frameTop.htm" id="topFrameID" name="topFrame" scrolling="NO" >
  <frameset id="LeftRight" rows="*" cols="150,*" framespacing="0" frameborder="Yes"
border="1">
    <frame src="frameLeft.htm" id="leftFrameID" name="leftFrame" scrolling="NO" >
    <frame src="frameCenter.htm" id="centerFrameID" name="centerFrame">
  </frameset>
</frameset>
<noframes><body>

</body></noframes>
</html>
```

frameTop:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body>
<table width="350" border="0" cellpadding="0" cellspacing="0">
  <tr>
    <td valign="top">
      <input type="button" name="Submit22" value=" ↑ "
onClick="parent.TopDown.rows=0,*;">
    </td>
  </tr>
</table>
<br>
<frame src="frameTop.htm" id="topFrameID"
name="topFrame"
scrolling="NO" >
</body>
</html>
```

frameLeft:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body>
<table width="100%" border="0" cellspacing="0" cellpadding="0">
  <tr>
    <td align="left">
      <input type="button" name="Submit2" value="←" onClick="parent.LeftRight.cols=0,*;">
    </td>
  </tr>
</table>
<br>
<iframe src="frameLeft.htm" id="leftFrameID"
name="leftFrame"
scrolling="NO" ><br>
</body>
</html>
```

frameCenter:

```

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body>
<table width="100" border="0" cellspacing="0" cellpadding="0">
<tr>
<td height="21">
<input type="button" name="Submit3" value="→"
onClick="parent.LeftRight.cols='150,*';">
<input type="button" name="Submit2" value="↓"
onClick="parent.TopDown.rows='150,*';"> </td>
</tr>
</table>
<iframe src="frameCenter.htm" id="centerFrameID"
name="centerFrame">
<br>
<input type="button" name="Submit" value="Change Top bgColor by Name"
onClick="parent.frames('topFrame').document.bgColor='red';">
<input type="button" name="Submit" value="Change Top
bgColor" onClick="parent.frames('topFrame').document.bgColor='red';"> <br>
<input type="button" name="Submit4" value="Change Top bgColor by Name"
onClick="parent.topFrame.document.bgColor='blue';">
<input type="button" name="Submit" value="Change Top
bgColor" onClick="parent.topFrame.document.bgColor='blue';"> <br>
<input type="button" name="Submit5" value="Change Top bgColor by Name"
onClick="parent.topframe.document.bgColor='green';">
<input type="button" name="Submit" value="Change Top
bgColor" onClick="parent.topframe.document.bgColor='green';"> <br>
<input type="button" name="Submit52" value="Change Top bgColor by id"
onClick="parent.topFrameID.document.bgColor='yellow';">
<input type="button" name="Submit52" value="Change
Top bgColor by id"
onClick="parent.topFrameID.document.bgColor='yellow';"> <br>
<input type="button" name="Submit522" value="Change Top bgColor by id"
onClick="parent.topframeid.document.bgColor='yellow';">
<input type="button" name="Submit52" value="Change
Top bgColor by id"
onClick="parent.topframeid.document.bgColor='yellow';"> <br>
<input type="button" name="Submit5222" value="Change Top bgColor by id"
onClick="parent.frames(0).document.bgColor='yellow';">
<input type="button" name="Submit52" value="Change
Top bgColor by id"
onClick="parent.frames(0).document.bgColor='yellow';"> <br>
<input type="button" name="Submit5222" value="Change Top bgColor by id"
onClick="parent.frames('topFrame').document.bgColor='green';">
<input type="button" name="Submit52" value="Change
Top bgColor by id"
onClick="parent.frames('topFrame').document.bgColor='green';">
</body>
</html>

```

9) Name: multiple ids

Status:

Internet Explorer	Supported
Firefox	not supportd

Description:

When more than one elements have the same id, IE can access to those elements by using array ,and FF can access to only the first element.

Example:

10)Name: (object).addEventListener

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is a DOM Level 2 function.

Example:

```
<html>
<head>
  <title>DOM Event Example</title>
  <style type="text/css">
    #t { border: 1px solid red }
    #t1 { background-color: pink; }
  </style>
  <script type="text/javascript">

    // Function to change the content of t2
    function modifyText() {
      var t2 = document.getElementById("t2");
      t2.firstChild.nodeValue = "three";
    }

    // Function to add event listener to t
    function load() {
      var el = document.getElementById("t");
      el.addEventListener("click", modifyText, false);
    }

    function remove() {
      var el = document.getElementById("t");
      el.removeEventListener("click", modifyText, true);
    }
  </script>
</head>
<body onload="load();" > Click the table
<table id="t">
  <tr><td id="t1">one</td></tr>
  <tr><td id="t2">two</td></tr>
</table>
<input type="button" value="Remove event" onClick="remove();" >
<br>
<br>
<strong>Internet Explorer</strong> <br>
In IE you have to use attachEvent rather than the standard addEventListener. To
support IE, the example above can be modified to:
<p>if (el.addEventListener){<br>
  el.addEventListener('click', modifyText, false); <br>
} else if (el.attachEvent){<br>
  el.attachEvent('onclick', modifyText);<br>
}<br>
<br>
<strong>Older way to attach events</strong><br>
addEventListener() was introduced with the DOM 2 Events specification. Before
then, events were attached as follows: </p>
<p>// Using a function reference—note lack of '<'<br>
  el.onclick = modifyText;</p>
<p>// Using a function statement<br>
  element.onclick = function(){<br>
  ...statements...<br>
  };<br>
</p>
</body>
</html>
```

11)Name: (object).hasAttribute

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is a DOM Level 1 function.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>
<body>
<div id="div1" align="left" onClick="dclick();" style="width=100"> Click me </div>
<script language="JavaScript">
function dclick()
{
    var d = document.getElementById("div1");
    if (d.hasAttribute("align"))
    {
        d.setAttribute("align", "center");
    }
    var idAttr = d.getAttributeNode("align");
    alert(idAttr.value);
}
</script>
</body>
</html>
```

12)Name: (object).getAttributeNode

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is a DOM Level 1 function.

Example:

13)Name: (object).removeEventListener

Status:

Internet Explorer	not supported
Firefox	supported

Description:

This is a DOM Level 2 function.

Example:

14) Name: parent.frames

Status:

Internet Explorer	supported
Firefox	not supported

Description:

In order to access a parent frame, parent.frames(i) is supported in IE, while not in FF.

Example:

http://rikanet2.jst.go.jp/contents/cp0050/menu/menu_t3_frame_56k.html

frameMain:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN"
"http://www.w3.org/TR/html4/frameset.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<frameset id="TopDown" rows="150,*" cols="*" frameborder="Yes" border="1"
framespacing="0">
  <frame src="frameTop.htm" id="topFrameID" name="topFrame" scrolling="NO" >
  <frameset id="LeftRight" rows="*" cols="150,*" framespacing="0" frameborder="Yes"
border="1">
    <frame src="frameLeft.htm" id="leftFrameID" name="leftFrame" scrolling="NO" >
    <frame src="frameCenter.htm" id="centerFrameID" name="centerFrame">
  </frameset>
</frameset>
</html>
```

frameTop:

```

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body>
<table width="350" border="0" cellpadding="0" cellspacing="0">
  <tr>
    <td valign="top">
      <input type="button" name="Submit22" value=" ↑ "
onClick="parent.TopDown.rows=0,*;">
    </td>
  </tr>
</table>
<br>
<iframe src="frameTop.htm" id="topFrameID"
name="topFrame"
scrolling="NO" ><br>
</body>
</html>

```

frameLeft:

```

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body>
<table width="100%" border="0" cellspacing="0" cellpadding="0">
  <tr>
    <td align="left">
      <input type="button" name="Submit2" value="←" onClick="parent.LeftRight.cols=0,*;">
    </td>
  </tr>
</table>
<br>
<iframe src="frameLeft.htm" id="leftFrameID"
name="leftFrame"
scrolling="NO" ><br>
</body>
</html>

```

frameCenter:

```

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body>
<table width="100" border="0" cellspacing="0" cellpadding="0">
<tr>
<td height="21">
<input type="button" name="Submit3" value="→"
onClick="parent.LeftRight.cols='150,*';">
<input type="button" name="Submit2" value="↓"
onClick="parent.TopDown.rows='150,*';"> </td>
</tr>
</table>
<iframe src="frameCenter.htm" id="centerFrameID"
name="centerFrame">
<br>
<input type="button" name="Submit" value="Change Top bgColor by Name"
onClick="parent.frames('topFrame').document.bgColor='red';">
<input type="button" name="Submit" value="Change Top
bgColor" onClick="parent.frames('topFrame').document.bgColor='red';"><br>
<input type="button" name="Submit4" value="Change Top bgColor by Name"
onClick="parent.topFrame.document.bgColor='blue';">
<input type="button" name="Submit" value="Change Top
bgColor" onClick="parent.topFrame.document.bgColor='blue';"><br>
<input type="button" name="Submit5" value="Change Top bgColor by Name"
onClick="parent.topframe.document.bgColor='green';">
<input type="button" name="Submit" value="Change Top
bgColor" onClick="parent.topframe.document.bgColor='green';"><br>
<br>
<input type="button" name="Submit52" value="Change Top bgColor by id"
onClick="parent.topFrameID.document.bgColor='yellow';">
<input type="button" name="Submit52" value="Change
Top bgColor by id"
onClick="parent.topFrameID.document.bgColor='yellow';"><br>
<input type="button" name="Submit522" value="Change Top bgColor by id"
onClick="parent.topframeid.document.bgColor='yellow';">
<input type="button" name="Submit52" value="Change
Top bgColor by id"
onClick="parent.topframeid.document.bgColor='yellow';"><br>
<br>
<input type="button" name="Submit5222" value="Change Top bgColor by id"
onClick="parent.frames(0).document.bgColor='yellow';">
<input type="button" name="Submit52" value="Change
Top bgColor by id"
onClick="parent.frames(0).document.bgColor='yellow';"><br>
<input type="button" name="Submit5222" value="Change Top bgColor by id"
onClick="parent.frames('topFrame').document.bgColor='green';">
<input type="button" name="Submit52" value="Change
Top bgColor by id"
onClick="parent.frames('topFrame').document.bgColor='green';"><br>
</body>
</html>

```

15)Name: parent.frames

Status:

Internet Explorer	supported
Firefox	not supported

Description:

In order to access a parent frame, parent.frames("framename") is supported in IE, while not in FF.

Example:

<http://mercury.unisoftonline.com/etifinance/>

frameMain:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN"
"http://www.w3.org/TR/html4/frameset.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<frameset id="TopDown" rows="150,*" cols="*" frameborder="Yes" border="1"
framespacing="0">
  <frame src="frameTop.htm" id="topFrameID" name="topFrame" scrolling="NO" >
  <frameset id="LeftRight" rows="*" cols="150,*" framespacing="0" frameborder="Yes"
border="1">
    <frame src="frameLeft.htm" id="leftFrameID" name="leftFrame" scrolling="NO" >
    <frame src="frameCenter.htm" id="centerFrameID" name="centerFrame">
  </frameset>
</frameset>
<noframes><body>

</body></noframes>
</html>
```

frameTop:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body>
<table width="350" border="0" cellpadding="0" cellspacing="0">
  <tr>
    <td valign="top">
      <input type="button" name="Submit22" value=" ↑ "
onClick="parent.TopDown.rows=0,*;">
    </td>
  </tr>
</table>
<br>
<frame src="frameTop.htm" id="topFrameID"
name="topFrame"
scrolling="NO" >
</body>
</html>
```

frameLeft:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body>
<table width="100%" border="0" cellspacing="0" cellpadding="0">
  <tr>
    <td align="left">
      <input type="button" name="Submit2" value="←" onClick="parent.LeftRight.cols=0,*;">
    </td>
  </tr>
</table>
<br>
<iframe src="frameLeft.htm" id="leftFrameID"
name="leftFrame"
scrolling="NO" ><br>
</body>
</html>
```

frameCenter:

```

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>

<body>
<table width="100" border="0" cellspacing="0" cellpadding="0">
<tr>
<td height="21">
<input type="button" name="Submit3" value="→"
onClick="parent.LeftRight.cols='150,*';">
<input type="button" name="Submit2" value="↓"
onClick="parent.TopDown.rows='150,*';"> </td>
</tr>
</table>
<iframe src="frameCenter.htm" id="centerFrameID"
name="centerFrame">
<br>
<input type="button" name="Submit" value="Change Top bgColor by Name"
onClick="parent.frames('topFrame').document.bgColor='red';">
<input type="button" name="Submit" value="Change Top
bgColor" onlick="parent.frames('topFrame').document.bgColor='red';"><br>
<input type="button" name="Submit4" value="Change Top bgColor by Name"
onClick="parent.topFrame.document.bgColor='blue';">
<input type="button" name="Submit" value="Change Top
bgColor" onlick="parent.topFrame.document.bgColor='blue';"><br>
<input type="button" name="Submit5" value="Change Top bgColor by Name"
onClick="parent.topframe.document.bgColor='green';">
<input type="button" name="Submit" value="Change Top
bgColor" onlick="parent.topframe.document.bgColor='green';"><br>
<br>
<input type="button" name="Submit52" value="Change Top bgColor by id"
onClick="parent.topFrameID.document.bgColor='yellow';">
<input type="button" name="Submit52" value="Change
Top bgColor by id"
onlick="parent.topFrameID.document.bgColor='yellow';"><br>
<input type="button" name="Submit522" value="Change Top bgColor by id"
onlick="parent.topframeid.document.bgColor='yellow';">
<input type="button" name="Submit52" value="Change
Top bgColor by id"
onlick="parent.topframeid.document.bgColor='yellow';"><br>
<br>
<input type="button" name="Submit5222" value="Change Top bgColor by id"
onlick="parent.frames(0).document.bgColor='yellow';">
<input type="button" name="Submit52" value="Change
Top bgColor by id"
onlick="parent.frames(0).document.bgColor='yellow';"><br>
<input type="button" name="Submit5222" value="Change Top bgColor by id"
onlick="parent.frames('topFrame').document.bgColor='green';">
<input type="button" name="Submit52" value="Change
Top bgColor by id"
onlick="parent.frames('topFrame').document.bgColor='green';"><br>
</body>
</html>

```

16)Name: whiteSpace change

Status:

Internet Explorer	not supported
Firefox	supported

Description:

IE only support (object).style.whiteSpace="pre", but FF also support to change it by set it's value directly.

Example:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=gb2312">
<title>Title</title>
</head>
<body>
<p style="whiteSpace=pre">
The presence of whitespace in the DOM can make manipulation of the content tree difficult in unforeseen ways. In Mozilla, all whitespace in the text content of the original document is represented in the DOM (this does not include whitespace within tags). (This is needed internally so that the editor can preserve formatting of documents and so that white-space: pre in CSS will work.) This means that:
there will be some text nodes that contain only whitespace, and some text nodes will have whitespace at the beginning or end. In other words, the DOM tree for the following document will look like the image below (using "\n" to represent newlines).
</p>
</body>
</html>
```

5.3.3 Different Interpretation of Standards

5.4 Media Types

It was gathered 12 web interoperability discrepancies regarding the structure of web page. The nine of them are classified into dependencies on operating systems, the rest of them are classified into dependencies on browsers.

5.4.1 Dependencies on Operating Systems

It was gathered 12 web interoperability discrepancies regarding the structure of web page. The nine of them are classified into dependencies on operating systems, the rest of them are classified into dependencies on browsers.

1) Name: RTF

Media-type: text/rtf

Status:

Windows	WordPad available (OS native)
Mac OS X	TextEdit (OS native)
Linux	OpenOffice available

Description:

RTF is an abbreviation of Rich Text Format which is a document file format defined by MS. The information of the size and colors of characters are stored into the RTFed document so that

whole style of the document can be represented

Example:

2) Name: MS Word Document

Media-type: application/msword

Status:

Windows	Word Viewer 2003 available (freeware)
Mac OS X	Word 2004 for Mac available (commercial)
Linux	not available (only third-party application available)

Description:

The Microsoft Word document formats (.DOC) as of the early 2000s were a de facto standard of document file formats due to their popularity. Though usually just referred to as "Word document format", this term refers primarily to the range of formats used by default in Word version 2-2003. In addition to the default Word binary formats, there are actually a number of optional alternate file formats that MS has used over the years.

Example:

3) Name: MS Excel Document

Media-Tpye: application/vnd.ms-excel

Status:

Windows	Excel Viewer 2003 available (freeware)
Mac OS X	Excel 2004 for Mac available (commercial)
Linux	not available (only third-party application available)

Description:

The Microsoft Excel has traditionally used a proprietary binary file format called Binary Interchange File Format (BIFF). MS Excel 2002 and subsequent versions also support an XML

format called "XML Spreadsheet" ("XMLSS"), although this format is not able to encode VBA macros. The Microsoft Excel 2007 additionally supports the Office Open XML format.

Example:

4) Name: MS Powerpoint Document

Media-Tpye: application/vnd.ms-powerpoint

Status:

Windows	PowerPoint Viewer 2003/2007 available (freeware)
Mac OS X	PowerPoint 2004 for Mac available (commercial), PowerPoint 98 Viewer for Macintosh available (outdated)
Linux	not available (only third-party application available)

Description:

The Microsoft PowerPoint file extension normally represents a Microsoft PowerPoint presentation, or slide show. These are most often created with Microsoft's PowerPoint software, though some other software, such as StarOffice, can also read and modify these files.

Example:

5) Name: Portable Document Format

Media-Tpye: application/pdf

Status:

Windows	Adobe Reader 8 available (freeware)
Mac OS X	Preview (OS native)
Linux	Adobe Reader 7 available (freeware)

Description:

Portable Document Format (PDF), sometimes mistaken for "Printable Document Format", is

an open file format created by Adobe Systems in 1993 and is now being prepared for submission as an ISO standard. It is used for representing two-dimensional documents in a device independent and resolution independent fixed-layout document format. Each PDF file encapsulates a complete description of a 2D document (and, with the advent of Acrobat 3D, embedded 3D documents) that includes the text, fonts, images, and 2D vector graphics that compose the document.

Example:

6) Name: Hangul Word Processor

Media-type: application/x-hwp

Status:

Windows	Hangul Viewer 2005 available (freeware)
Mac OS X	Mac Hangul 2006 available (commercial)
Linux	Hangul X R5 (2000) (commercial)

Description:

Hangul saves documents in HWP format, with the filename extension *.hwp. HWP files, up to the versions created with Hangul '97, can be opened with OpenOffice.org. However, files created with later editions of Hangul, including Hangul Wordian, Hangul 2002 and Hangul 2005, cannot be opened with OpenOffice.org, due to the major changes in the document structure. These later versions of Hangul provide adequate support for Microsoft Word .DOC format, the de facto standard in word processing applications. These versions also provide an English user interface depending on the location setting of the user's environment.

Example:

7) Name: Window Media Video

Media-type: video/x-ms-wmv

Status:

Windows	Windows Media Player available (native)
Mac OS X	Flip4Mac WMV available (freeware)
Linux	not available (license issue)

Description:

WMV (*.wmv) files use Microsoft's ASF container format. These files can be played by players such as MPlayer, VLC media player or Windows Media Player, the latter being only available for Microsoft Windows and Macintosh systems. Many third-party players exist for various platforms such as Linux that use the FFmpeg implementation of the WMV codecs.

Example:**8) Name: MP3****Media-type: audio/x-mpeg****Status:**

Windows	Windows Media Player available (native)
Mac OS X	Quicktime available (native)
Linux	not available (license issue)

Description:

An MP3 file is made up of multiple MP3 frames which consist of the MP3 header and the MP3 data. This sequence of frames is called an Elementary stream. Frames are independent items: one can cut the frames from a file and an MP3 player would be able to play it. The MP3 data is the actual audio payload. The diagram shows that the MP3 header consists of a sync word which is used to identify the beginning of a valid frame. This is followed by a bit indicating that this is the MPEG standard and two bits that indicate that layer 3 is being used, hence MPEG-1 Audio Layer 3 or MP3.

Example:**9) Name: MPEG-4****Media-type: video/mpeg4****Status:**

Windows	Windows Media Player available (native)
Mac OS X	Quicktime MPEG-4 Codec available (native)

Linux	not available (license issue)
--------------	-------------------------------

Description:

MPEG-4 is a standard used primarily to compress audio and visual (AV) digital data. Introduced in late 1998, it is the designation for a group of audio and video coding standards and related technology agreed upon by the ISO/IEC Moving Picture Experts Group (MPEG) under the formal standard ISO/IEC 14496. The uses for the MPEG-4 standard are web (streaming media) and CD distribution, conversation (videophone), and broadcast television, all of which benefit from compressing the AV stream.

Example:

5.4.2 Dependencies on Browsers

1) Name: XHTML 1.1

Media-type: application/xhtml+xml

Status:

Internet Explorer	not supported
Firefox	supported

Description:

The most recent XHTML W3C Recommendation is XHTML 1.1: Module-based XHTML, which is a reformulation of XHTML 1.0 Strict using a set of modules selected from a larger set defined in Modularization of XHTML, a W3C Recommendation which provides a modularization framework, a standard set of modules, and various conformance definitions. All deprecated features of HTML, such as presentational elements and framesets, have been removed from this version. Presentation is controlled purely by Cascading Style Sheets (CSS). This version also allows for ruby markup support, needed for East-Asian languages (especially CJK).

Example:

2) Name: Cascading Style Sheets(CSS)

Media-type: text/css

Status:

Internet Explorer	mime-type sniffing occurs
Firefox	Strict

Description:

some older web servers are still configured to serve documents with the filename extension .css as mime type application/x-pointplus. This is because the Net-Scene company was selling PointPlus Maker to convert PowerPoint files into Compact Slide Show files (using the .css extension) and web servers were configured to signal to client browsers that these .css files were x-pointplus media type. Since the plug-in was listed in the directory for Netscape Navigator 3.0, the popular Netscape Enterprise Server was distributed with this mapping pre-configured. When reading external style sheets some web browsers try to compensate for the misconfigured web servers by treating the PointPlus media type as a text/css media type instead, but some (notably Firefox) comply with the media type and will not render the external CSS file as a style sheet.

Example:

<http://devedge-temp.mozilla.org/viewsource/2002/incorrect-mime-types/>

3) Name:Portable Network Graphics(PNG)

Media-type: image/png

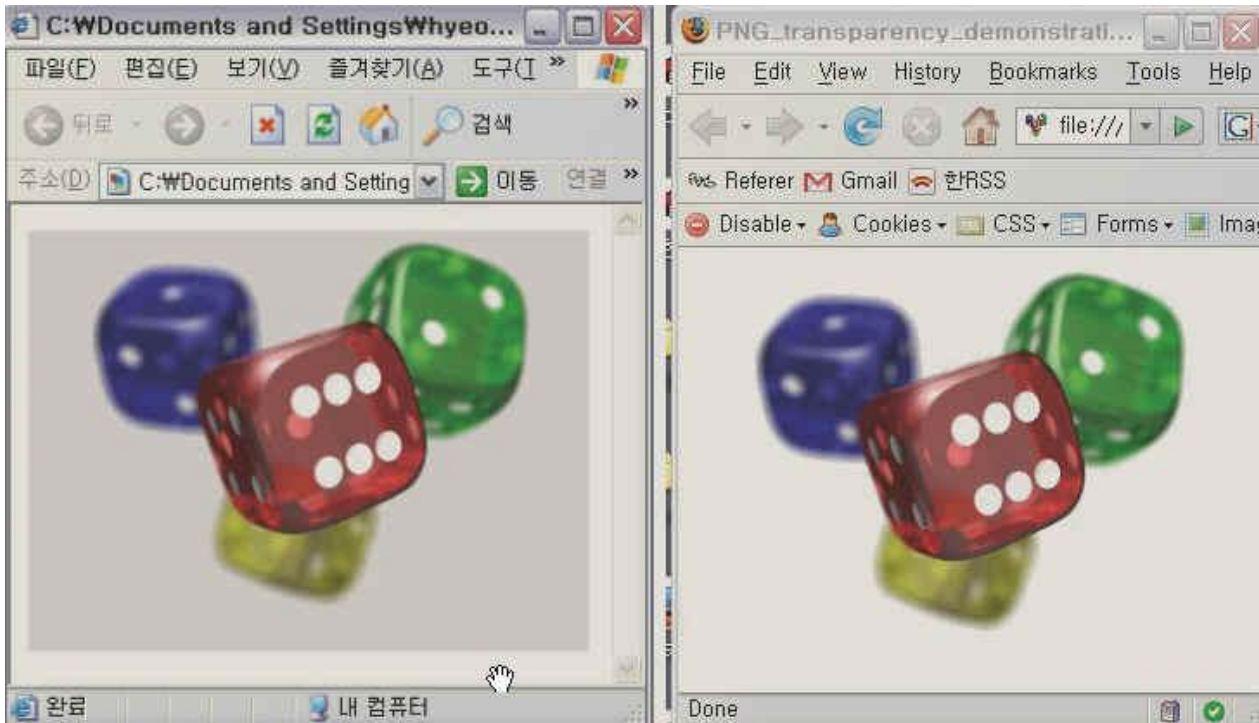
Status:

Internet Explorer	partially supported (transparency, alpha channel)
Firefox	Supported

Description:

PNG (Portable Network Graphics) is a bitmapped image format that employs lossless data compression. PNG was created to improve and replace the GIF format, as an image-file format not requiring a patent license. PNG is pronounced "ping" (/p?ŋ/ in IPA), but can be spoken "P-N-G" to avoid confusion with network tool ping.

Example:



6 Summary

There are total 168 discrepancies reported in the survey. The result of this survey, however, does not reveal all discrepancies between IE and Firefox. It is impossible to gather all discrepancies because this laborious work is similar to fixing all bugs of software.

There are 48 Web interoperability discrepancies regarding the structure of Web page. 32 of them are classified into implementation-unique Web elements, 8 of them are classified into disregard of standards, and 6 of them are classified into different interpretation of standards.

There are 64 Web interoperability discrepancies regarding the presentation of Web pages. 31 of them are classified into implementation-unique Web elements, 29 of them are classified into disregard of standards, and 4 of them are classified into different interpretation of standards.

The discrepancies in behavior category mainly come from non-standard access method of DOM object. There are 44 Web interoperability discrepancies regarding the behavior of Web pages. 25 of them are classified into implementation-unique Web elements, 19 of them are classified into disregard of standards, no discrepancy is found as different interpretation of standards.

There are 12 web interoperability discrepancies regarding media types. 9 of them are classified into dependencies on Operating Systems, 3 of them are classified into dependencies on Browsers.

There are various media types in the Web. Most media types of the Web is texts and images, but there are many other media types also. Some media types are very widely used and most of user can access these Web elements easily. But the others have dependencies on OS and Web browsers. It is important that Web developer make their Web content with opened and widely used format to be accessed by many users.

References

Annex.1 Online resources

- DB registered in Firefox's "Reporting websites with problems" (Information on results of browsing in URL and Firefox; <http://reporter.mozilla.org/>)
- Feedback information collected by the TouchUpWeb system (Information on results of browsing in URL and Firefox)

Referenced literature is listed as follows.

- Reports on the Web standardization made in Bugzilla of Japanese Mozilla Community (<http://bugzilla.mozilla.gr.jp/>)
- Japan top website project report , <http://www.mozilla.gr.jp/webtest/finalreport.html>
- Modern browser bugs explained in detail, <http://www.positioniseverything.net/>
- QuirksMode, <http://www.quirksmode.org/>
- Compatibility of JavaScript and IE/ Firefox, http://esoft188.go2.icpcn.com/IE_and_Firefox/IE_and_Firefox.html
- Migrate apps from Internet Explorer to Mozilla, <http://www-128.ibm.com/developerworks/web/library/wa-ie2mozgd/>
- Tag <index>, <http://www.tagindex.com/>
- HTML Quick Reference, <http://www.htmq.com/>
- Tohoho's WWW introduction, <http://www.tohoho-web.com/>
- Web Browser Standards Support, <http://www.webdevout.net/browser-support>
- MIME Media Types, <http://www.iana.org/assignments/media-types/>
- Windows MIME Type List, <http://plugindoc.mozdev.org/winmime.html>

Annex.2 Printed resources

- "Dictionary on HTML & XHTML & CSS Explained in Detail"
- "Must-have Dictionary on HTML/CSS/JavaScript Web browser compatibility"
- "Super-Illustrated Dictionary on HTML & CSS"