



Squeezing the most out of Chrome

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A few cool features

- CSS filters
Blur, brightness, contrast, grayscale, ...
- CSS Shapes
Funky text wrapping
- WebP
Google-developed image format
- Mutation observers
DOM manipulation event listeners
- Shadow DOM
Component isolation

And much more — check out



I wanna use them!

Not supported by (most) other browsers yet :-(

"Am I really limited to the features in IE 6/7/8?"

Solution:

Feature detection

and fall back if not supported

Feature Detection vs UA sniffing

User agent string:

*Mozilla/5.0 (Macintosh; Intel Mac OS X 10_8_2) AppleWebKit/537.22
(KHTML, like Gecko) Chrome/25.0.1364.172 Safari/537.22*

- Tricky to parse reliably
- Some browsers/users fake them
- Assume features won't change

Feature detection:

- Look for signs that features have been implemented
- Not fool-proof, but more reliable
- Future-proof!



SHOW ME!

Feature Detection Techniques

1. Does it exist?

```
'webkitCreateShadowRoot' in document.documentElement
```

2. Does it stick?

```
var el = createElement('div');  
el.style.cssText = 'filter:blur(2px)';  
!!el.style.length    // true if CSS filters supported
```

3. Does it work?

```
var image = new Image();  
image.onload = function() {  
    image.width == 1    // true if WebP supported  
}  
image.src = '...';
```



- Feature detection library
- Over 150 HTML5, CSS3 & JS features:
SVG, audio/video, filters, web sockets, web RTC, transforms, transitions, animations, Dart, history API, canvas...
- `<html class="js cssfilters dart no-indexeddb svg">`
- `if (Modernizr.audio) { ... }`
- Open source (MIT licence): github.com/Modernizr

modernizr.com

Native feature detection

@supports CSS rule

```
@supports (display:flex) {  
    /* Applied if browser supports `display:flex` */  
}
```

- In Opera & FF Aurora
- Coming soon to Chrome
- Doubts over integrity...

Example: CSS Filters

HTML

```

```

CSS

```
.orange {  
  -webkit-filter: grayscale(1);  
}
```

Example: CSS Shapes

```

```

```
<p>Here's a load of...</p>
```

1. Assume no support

```
.orange {  
  float: left;  
  width: 50px;  
}
```

2. Enhance!

```
.cssshapes .orange { /* .cssshapes provided by Modernizr */  
  width: 300px;  
  -webkit-shape-outside: circle(50%, 50%, 50%);  
  -webkit-shape-margin: 1em;  
}
```

Example: Mutation Observers

```
var MutationObserver = window.WebKitMutationObserver ||  
                        window.MozMutationObserver;
```

```
if (MutationObserver) {  
    var observer = MutationObserver(function(mutations) {  
        ...  
    });  
    var target = document.querySelector('#target');  
}
```

```
else {  
    $('#target *').livequery(function () {  
        ...  
    });  
}
```

Example: Shadow DOM

```
var widgetHTML = getWidgetHTML();
var target = document.querySelector('#target');

if ('webkitCreateShadowRoot' in document.documentElement) {
  var root = target.webkitCreateShadowRoot();
  root.innerHTML = widgetHTML;
}
else {
  var iframe = document.createElement('iframe');
  iframe.src = 'about:blank';
  // insert contents in iframe
  target.appendChild(iframe);
}
```

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