



IE7 and Beyond

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Who Is This Character?

An unknown member of Flock of Seagulls?
Or Rowlf the Muppet?

- Browser guy since 1993
- NCSA Mosaic for Windows
- Internet Explorer 2.0-7.0
- Web standards guy
 - HTML, CSS, DOM, I18n, XSL



Internet Explorer 7

The whirlwind tour

- **Amazing User Experience**
- **Secure and Trustworthy Browsing**
- **Powerful Web Developer Platform**

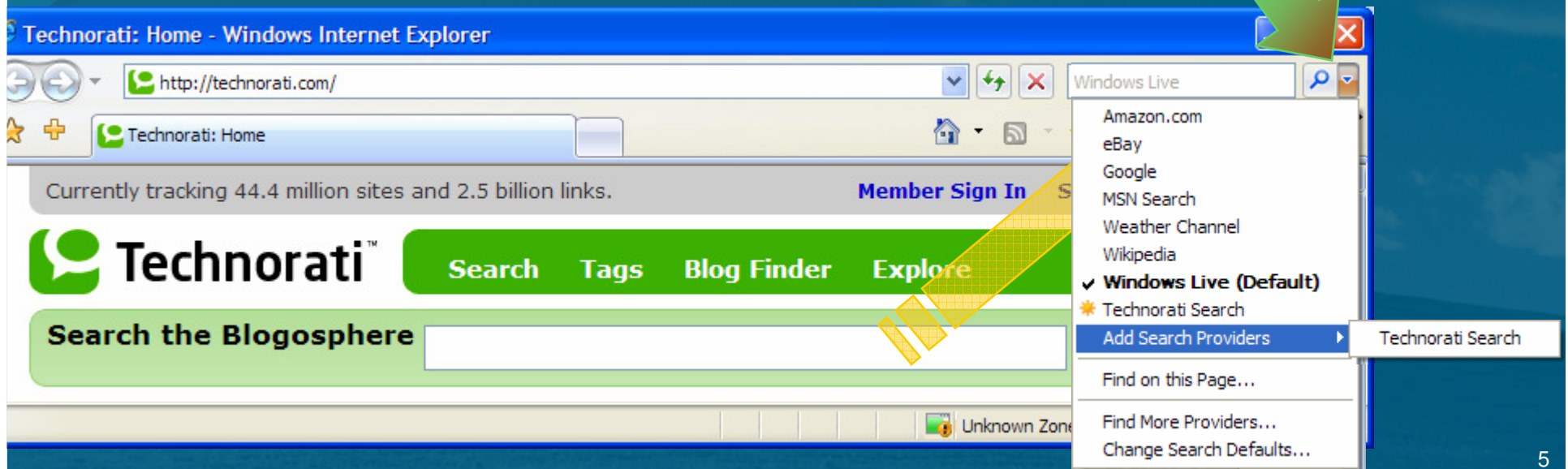
Amazing User Experience

- Streamlined UI
 - Tabbed Browsing with Quick Tabs
 - Extensible search in UI via OpenSearch
- Integrated RSS platform
- Great default print experience
- Page Zoom
- International Domain Name (IDN) support

OpenSearch 1.1

An open way to describe search providers

- Script API prompts user to add provider:
`window.external.AddSearchProvider([url])`
- Or use a link:
`<link title="My Search" rel="search"
type="application/opensearchdescription+xml"
href="http://mysearch.com/search.odd" />`
- More detail on the IEBlog



RSS Feed Discovery

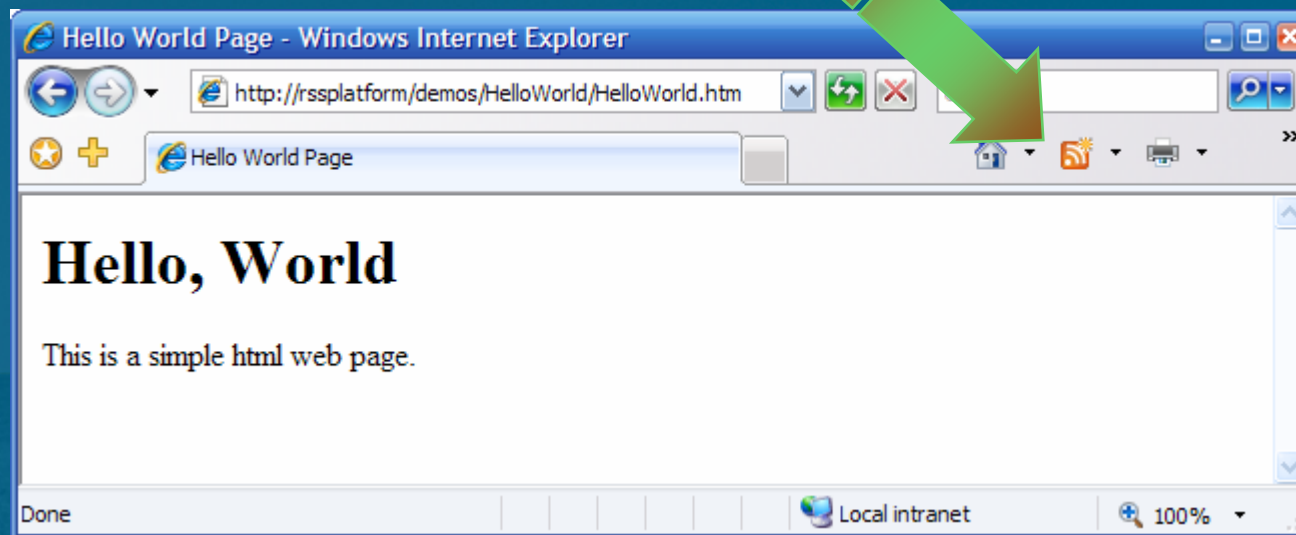
- Discovery of feeds on web pages

```
<head>
```

```
  <title>Hello world Page</title>
```

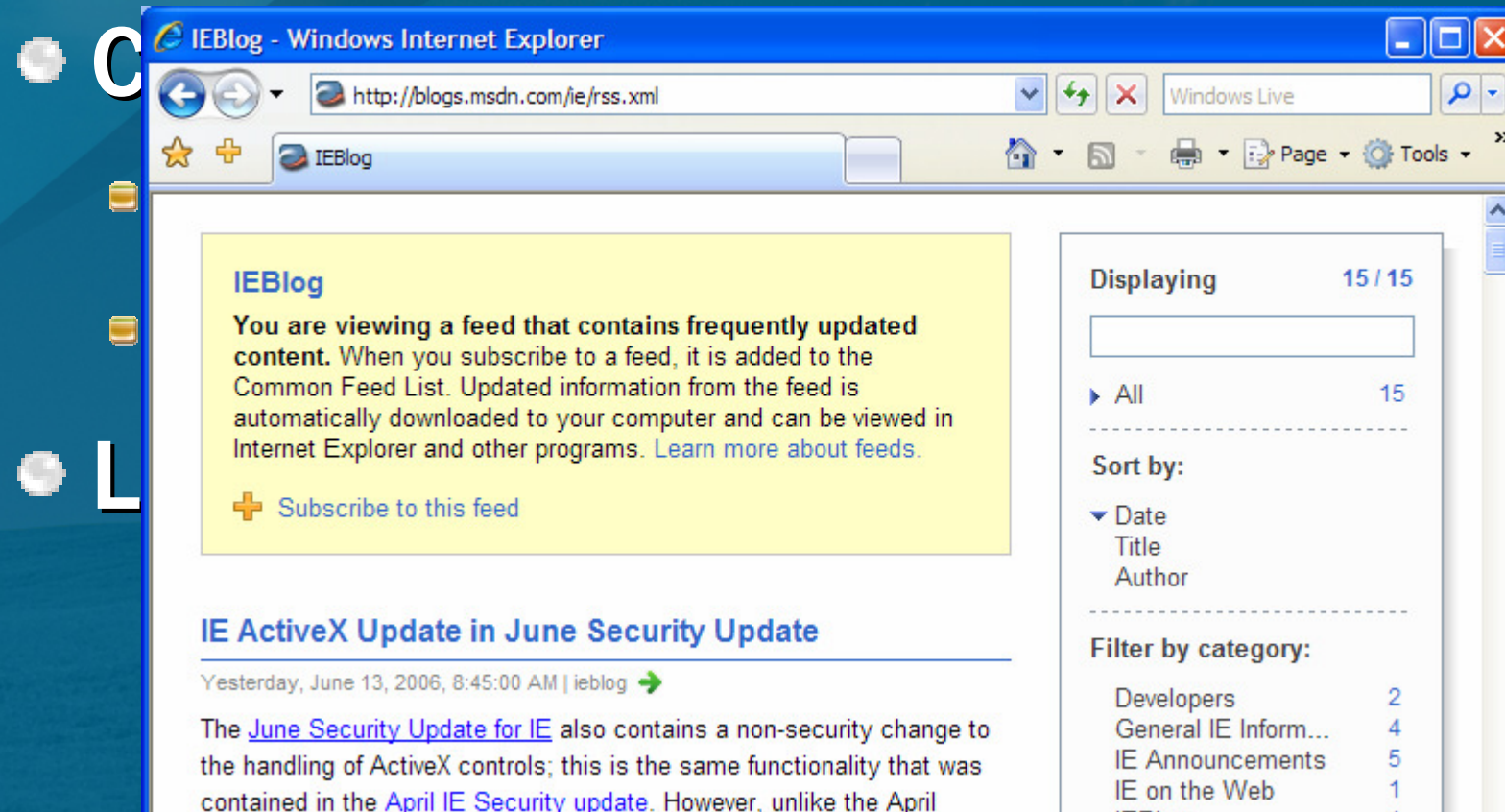
```
  <link rel="alternate" type="application/rss+xml"  
    title="Hello world feed" href="HelloWorld.xml"/>
```

```
</head>
```



Windows RSS Platform provides...

- Feed Discovery (in IE)
- Default feed view



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Secure and Trustworthy Browsing

Security is job #1

- Protection against web fraud
- Full user control over add-ons
- Advanced malware protection

Secure and Trustworthy Browsing

Web fraud and user control

- **Anti-web-fraud features**
 - Anti-phishing service integrated into IE
 - User experience highlights security
 - SSL user experience, address bar on popups
- **Integration of Parental Controls (Vista)**
- **Explicit user consent is required on first run of unused installed ActiveX controls**
- **Add-on Manager (from XPSP2)**

Secure and Trustworthy Browsing

Advanced malware protection

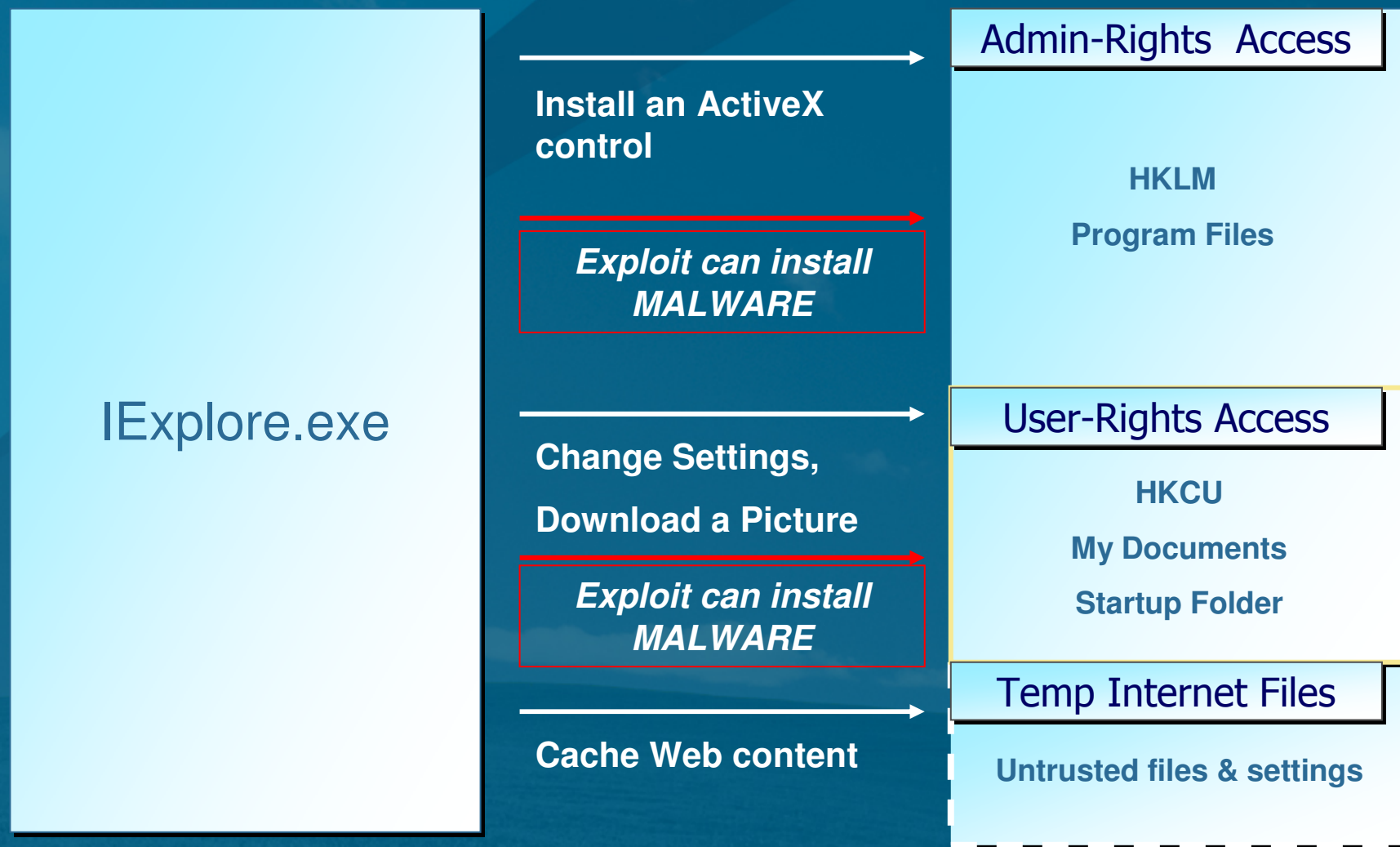
Malicious web pages often install malware or modify files by exploiting buffer overruns or other critical security exploits in IE or add-ons

Solution: **Protected Mode** (Vista)

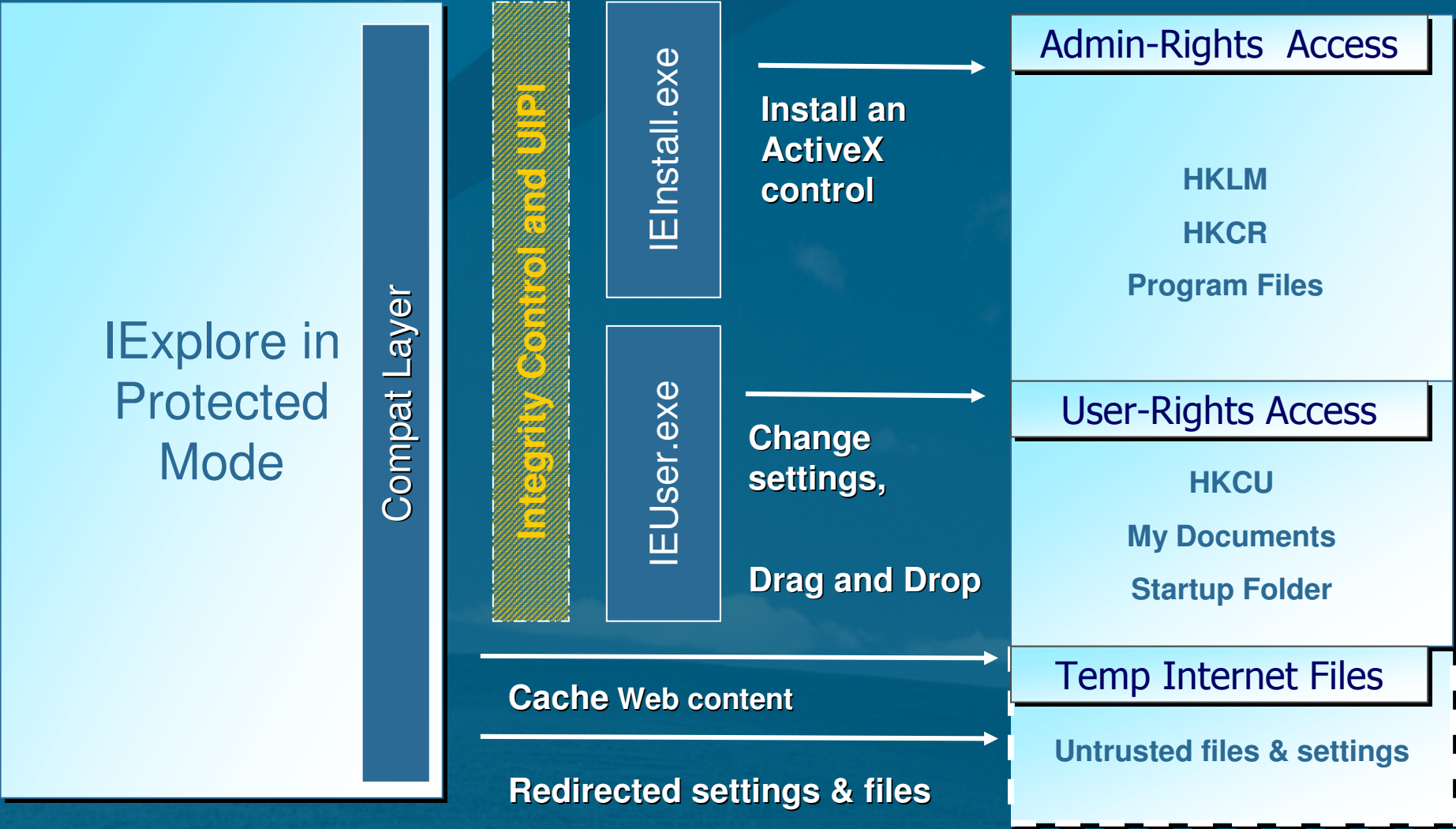
Eliminates silent install of malicious code

- Protects registry, file system from silent malware installs
- Does NOT prevent running Win32 code
- Only available on Windows Vista

IE Running With Full Privileges



Protected Mode: IE is “least privileged”



Powerful Web Dev Platform

Updating IE's platform

- **Our focus: Folks who need to make a living**
 - Added most-requested standards features
 - Fixed top pain points/consistency issues
- **We listened to your feedback**
 - Requests on IEBlog, newsgroups, conferences
 - MeyerWeb, PositionIsEverything, Quirksmode
 - The Web Standards Project

Powerful Web Dev Platform

Adding the most requested features

- Fixed inconsistencies with the W3C specs
 - Enable :hover on all elements not just on <a>
 - Background-attachment: fixed on all elements
 - Improved <object> fallback
- Added standards features (CSS 2/HTML 4)
 - Fixed positioning support
 - Min/Max-Width/Height support
 - Selectors: first-child, adjacent, attribute, child
 - CSS 3 attribute selectors: prefix, suffix and substring

Powerful Web Dev Platform

Adding the most requested features

- Alpha channel support in PNG images
- Native XMLHttpRequest
 - Better enables DHTML/Atlas applications
 - No longer subject to ActiveX being enabled
- `<select>` element now windowless
 - Can be visually layered w/ other elements

Position Is Everything



And A Bunch Of Other Bugs Too

- Parser bugs: * html, _property or /***/ comment bug
- Memory leaks in jscript engine
- Select control: style-able and not always on top
- Auto-sizing of absolute positioned element with right & left
 - great for 3 column layouts
- Relative positioning issues
- % calculations for height/width for abs positioned elements
- hover effect working not just over text
- <?xml> prolog no longer causes quirks mode
- HTML element truly independent of the Body
- 1 px dotted borders no longer render as dashed
- Bottom margin bug on hover does not collapse margins

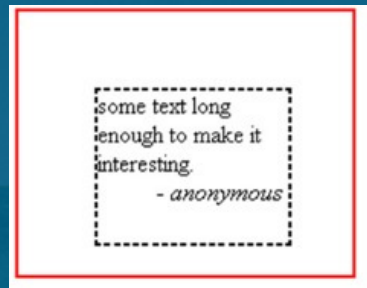
Overflow Behavior Now Fixed!

IE6 used to grow the boxes (even if not asked)

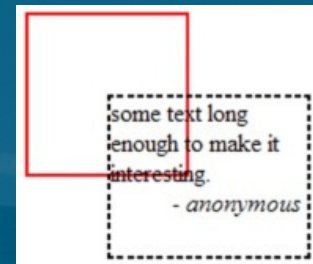
```
<style type="text/css">
  div { width : 100px; height: 100px; border: thin solid red;}
  blockquote { width: 125px; height: 100px; margin-top: 50px;
               margin-left: 50px; border: thin dashed black}
  cite { display: block; text-align: right; border: none}
  p { margin: 0;}
</style>

<div> <blockquote> <p>some text long enough to make it interesting.</p>
<cite>- anonymous </cite> </blockquote> </div>
```

IE6



IE7 (and all other modern browsers)



Improved Standards Support...

...means some pages break.

- IE must balance standards compliance with site compatibility
- (This doesn't mean "don't improve")
- It means we have to be careful

Don't Break the Web

A quote

“I’m really concerned that we’re breaking stuff in the name of goodness and that all users and developers will walk away with is ‘stuff broke.’”

Compatibility is critical to IE

“Quirks mode” vs. “Standards mode”

- In IE7, “quirks mode” stays the same - most standards changes are only in “strict mode”
 - If you use “quirks mode”, IE7 works just like IE6
- Unfortunately, standards mode is increasingly popular, and in many cases, developers expect “compatible” behavior – even in so-called standards mode.

This is where you come in

Help break the vicious cycle

- We prioritized attacking our standards bugs
- I need you to help by testing and fixing your web pages now, before we ship
 - We're done changing – test them with RC1!
- This is a symbiotic relationship
 - Unless you don't think improving IE's standards support is important. 😊

Common Breakages

And how you can easily fix them

- User Agent Strings and Browser Detection
 - Base your version-testing on `>=`, NOT `=`
- Overflow
 - Use `min-height/width` or correct box size
- `<?xml>` prolog doesn't prevent strict mode in IE7, which affects the CSS Box Model

```
<?xml version="1.0"?>
```

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0  
Strict//EN" "DTD/xhtml1-strict.dtd">
```

Community Workarounds aka CSS Hacks

- Rely on parser bugs and/or not yet implemented features
 - * html (Target: IE only)
 - _height:50px; (Target: IE only)
 - height/**/: 300px; (Target: Everyone but IE)
 - html > body (Target: Everyone but IE)
- Ideally no workarounds are needed – but reality intrudes
 - **If you use CSS hacks – only target already-obsolete UAs**
 - Know in what browser version your hack will stop working
 - IE Alternative: Conditional Comments to target browser versions

```
<!--[if lte IE 6]>
  <link rel="stylesheet" type="text/css"
href="iestyles.css" />
<![endif]-->
```

We Are Here To Help

Tools to identify and fix breaks

- **IE7 Readiness Toolkit**

- **Web developer toolbar – IE6+**

- **Rich tool set for exploring DHTML and CSS**

- **ExpressionFinder - identifies CSS hacks**

- **Application Compatibility Toolkit**

- **Identifies features blocking app functionality**

- **Fiddler HTTP monitor**

- **And other tools**

- **<http://blogs.msdn.com/ie/archive/2006/04/24/582546.aspx>**

The Future of Internet Explorer

- Yes, IE has a future.
- Continuing to put the user in control of their security and privacy
- Building on, improving and adding to the powerful standards-based platform
- Providing the best web user experience

What's next for the Web?

- The Mash-Up pattern will continue to grow
- RSS will help stimulate that growth
- So will semantic tagging of data
 - Microformats is helping to stimulate that
 - LiveClipboard stuff is a good example
- More capabilities will become standardized
 - XMLHttpRequest, for example (!)
 - Need application semantics, not just pages
- The interoperable platform will grow
- Privacy will become a greater concern

IE Beyond IE7 – the FAQ

- When is IE7 shipping?
 - Fourth Quarter 2006.
- Side by Side versions of IE?
 - Technically hard - IE provides the OS web platform. We've heard the request for site testing, and we're actively working on it.
- Acid2?
 - In the future, yes; but not all features and bugs sorted to top of the list in IE7. Not just CSS.
- Why not XHTML?
 - Not until we can do it right - wellformed-ness-testing parser, integrating multiple schema, etc. We will support this in the future.

Key Takeaways - Call To Action

What should you do?

- Please prepare your pages to be ready for IE7
 - Standards improvements mean that behavior will change
 - End users don't like broken pages, so we need your help!
- Make sure your IE components (ActiveX, BHOs, toolbars) are prepared for opt-in & Protected Mode
- Take the Leap
 - RSSify Now - RSS enable your site, use Sort & Filter tags
 - Use OpenSearch for search exposure
- Give us feedback

Resources

IE Dev Center:

<http://msdn.microsoft.com/ie/>

IE Team Blog:

<http://blogs.msdn.com/IE/>

RSS Team blog

<http://blogs.msdn.com/rssteam/>

Oh yeah, and my blog and email:

<http://blogs.msdn.com/cwilso/>

Chris.Wilson@microsoft.com

