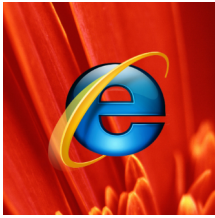


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By: Marius Oiaga, Technology News Editor

Internet Explorer
Microsoft

Microsoft Applauds IE8 Beta 2 Performance Boost

JavaScript performance up 400% in IE8 compared to IE7

Internet Explorer 8 is not the fastest browser in the universe. This, according to IE Program Manager, [Christian Stockwell](#), working on the performance of the browser. However, this is not to say that the Redmond company has not poured a consistent amount of efforts into boosting the performance of IE7's successor. In fact, Internet Explorer 8 Beta 2, planned for release by the end of this month, will offer palpable proof of the new horsepower under the browser's hood. "When we took a hard look at our goals and considered what we could do to build the best browser, we were presented with a quandary. On the one hand, we could focus very narrowly on scripting performance, trusting that our investment would noticeably improve our users' browsing experience. Alternatively, we could invest more broadly in realistic scenarios, measuring heavily-used subsystems and investing our optimization effort accordingly. We opted for the latter approach," Stockwell noted. "Even as early as March 2008, IE GM Dean Hachamovitch indicated that JavaScript performance was up 2.5 times, the Gmail inbox was loading 34% faster, the task of opening a new conversation took 45% less time, while that of opening a thread 25% less. With IE8 Beta 2, Microsoft has tweaked the execution time for the browser, but it has also managed to speed up navigation and user interaction. In the end, Microsoft went well beyond JavaScript when it comes down to increasing the performance of the browser. In this context, improvements were introduced to scripting, memory management, networking, the rendering engine, and beyond. "As part of our broader effort to improve performance in IE8, we did make large investments in JScript performance to make pages faster and to help developers be more productive. The JScript engine included with IE8 speeds up many common user scenarios. We have made huge improvements to widely-used JScript functionality including faster string, array, and lookup operations. We have also made changes to our core architecture to drastically reduce the cost of functions calls, object creation, and lookup patterns for variables scoped to the window or this objects," Stockwell stated. "According to Microsoft, JavaScript performance in IE8 is with as much as 400% up from IE7. This percentage, while indeed impressive, pales next to the [700% JScript performance boost](#) touted by Mozilla for Firefox 3.1 compared with version 3.0. "The second area in which we are invested heavily in IE8 is in improvements to our memory usage. To date, we have fixed just under 400 separate memory leaks in Internet Explorer. We have also worked hard to improve our heap fragmentation and memory usage on AJAX pages. For users, these changes reduce the amount of memory consumed by IE, improve our startup times, speed up navigating between pages, and help IE remain stable for longer periods of time. Besides these great benefits to end users, our work in this area should take a significant burden off of developers," Stockwell revealed. "At the same time, IE8 will be tailored to high speed bandwidth connections, being capable of handling more than its precursor. In this regard, Internet Explorer 8 will support a larger number of parallel connections compared with IE7, and will benefit from an advanced system designed to manage downloads accompanied by external scripts. But, in the end, Microsoft has also hammered away at the underlying rendering engine of the browser. "By our upcoming Beta 2 we expect our standards mode engine to be at parity with our previous implementation for many sites. Going forward we will continue to invest in this area with the goal that when IE ships, developers do not have to make any difficult decisions: developing for our new engine will produce sites that work better across browsers and as an added bonus they will be faster too," Stockwell promised. Internet Explorer 8 Beta 1 is available for download [here](#).