

## Features of the new Java plug-in

A brief description of the new features of the forthcoming Java 6 SE plug-in update.

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## Introduction

The Java plug-in is the link between web browsers and Sun's Java Virtual Machine (JVM). The JVM provides a platform independent environment for executing Java code. It is the Java plug-in that allows Java Applets to run inside the browser, and it is this plugin that AltioLive relies on to allow its client to run inside the browser and provide the AltioLive environment for hosting client applications.

The plug-in has come in for a lot of criticism over the years for its slow startup time, appearance, runtime performance and memory management, but it has had no major update in the last few versions of the Java virtual machine. However Sun's next major update to Java 6, currently known as Java 6 SE Update N, will include a complete rewrite of the browser plugin to offer improved performance and new features.

## New features

The new plugin offers the following significant features:

- A faster startup time of the Java Runtime Environment (JRE).
- A modular JRE download.  
For users without a JRE on their machine the essential parts of the JRE can be downloaded first to enable them to get the applet running as fast as possible, while the rest of the JRE is downloaded in the background.
- Applet-specific memory management.  
Until now users had to configure applet memory settings via a Control Panel applet that applied settings globally for all applets. With the new plugin applet developers can specify their applet's heap size requirements in their applet parameters, which will not affect any other applet. This makes it easier to deploy applets with memory requirements that exceed the default 64MB heap size.
- Applet-specific Java version requirements.  
Until now users configured which version of Java their machine used to execute applets via a Control Panel applet that applied its settings globally for all applets. Now applet developers can specify a particular version of Java required for their applet in the applet parameters specified in the HTML host page.
- Separation of plugin from browser.  
The new plugin runs in a separate process to the browser, and also any other applets, This means that any problems that occur in one applet, if it crashes or freezes for any reason, will not affect the browser or any other applets.
- Improved graphics rendering.  
The new plugin can take advantage of hardware accelerated graphics pipelines for faster rendering of Swing controls.

The new JRE plugin is currently available as part of an early access programme. It is expected to be available in beta form in March 2008, with the full release in summer/autumn 2008.

Altio will provide more details on how these new plug-in features can be incorporated into your AltioLive applications closer to the release date of the plug-in. Until then further documentation can be found on Sun's site at:

<https://jdk6.dev.java.net/testPlugIn.html>  
<https://jdk6.dev.java.net/6uNea.html>