## Jenkins (software)

**Jenkins** is an open source automation server written in Java. Jenkins helps to automate the non-human part of the software development process, with continuous integration and facilitating technical aspects of continuous delivery. It is a server-based system that runs in servlet containers such as Apache Tomcat. It supports version control tools, including AccuRev, CVS, Subversion, Git, Mercurial, Perforce, ClearCase and RTC, and can execute Apache Ant, Apache Maven and sbt based projects as well as arbitrary shell scripts and Windows batch commands. The creator of Jenkins is Kohsuke Kawaguchi. [3] Released under the MIT License, Jenkins is free software.<sup>[4]</sup>

Builds can be triggered by various means, for example by commit in a version control system, by scheduling via a cron-like mechanism and by requesting a specific build URL. It can also be triggered after the other builds in the queue have completed. Jenkins functionality can be extended with plugins.

The Jenkins project was renamed after a dispute with Oracle, and its fork, Hudson, continued to be developed by Oracle for a time before being donated to the Eclipse Foundation.

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**History** 

Jenkins was originally developed as the Hudson project. Hudson's creation started in summer of 2004 at Sun Microsystems. It was first released in java.net in Feb. 2005. [5]

Around 2007 Hudson became known as a better alternative to CruiseControl and other open-source build-servers. [3][6] At the JavaOne conference in May 2008 the software won the Duke's Choice Award in the Developer Solutions category.<sup>[7]</sup>

**Jenkins** 

Ocnsole Output

**Initial release** 2 February 2011<sup>[1]</sup>

Repository

Written in

**Platform** 

License

Website

Type

**Stable release** 2.89.4 / 14 February 2018

Java

Java SE

MIT<sup>[2]</sup>

Continuous integration

jenkins.io (https://jenkins.io/)

https://github.com/jenkinsci/jenkins

During November 2010, an issue arose in the Hudson community with respect to the infrastructure used, which grew to encompass questions over the stewardship and control by Oracle. [8] Negotiations between the principal project contributors and Oracle took place, and although there were many areas of agreement a key sticking point was the trademarked name "Hudson",[8] after Oracle claimed the right to the name and applied for a trademark in December 2010. [9] As a result, on January 11, 2011, a call for votes was made to change the project name from "Hudson" to "Jenkins". [10] The proposal was overwhelmingly approved by community vote on January 29, 2011, creating the Jenkins project.<sup>[11][12]</sup>

On February 1, 2011, Oracle said that they intended to continue development of Hudson, and considered Jenkins a fork rather than a rename. [13] Jenkins and Hudson therefore continue as two independent projects, each claiming the

other is the fork. As of December 2013, the Jenkins organisation on GitHub had 567 project members and around 1,100 public repositories, [9] compared with Hudson's 32 project members and 17 public repositories. [15]

In 2011, creator Kohsuke Kawaguchi received a Google-O'Reilly Open Source Award for his work on the Hudson/Jenkins project. In 2014, Kawaguchi became the chief technology officer for CloudBees. [16]

On April 20, 2016 version 2 was released with the Pipeline plugin enabled by default. The plugin allows for writing build instructions in Apache Groovy.

### **Plugins**

Plugins have been released for Jenkins that extend its use to projects written in languages other than Java. [17] Plugins are available for integrating Jenkins with most version control systems and bug databases. Many build tools are supported via their respective plugins. Plugins can also change the way Jenkins looks or add new functionality. There are a set of plugins dedicated for the purpose of unit testing that generate test reports in various formats (for example JUnit bundled with Jenkins, MSTest, NUnit etc. [10]) and automated testing which supports automated tests. Builds can generate test reports in various formats supported by plugins (JUnit support is currently bundled) and Jenkins can display the reports and generate trends and render them in the GUI.

Mailer

Allows configuring email notifications for build results. [11] Jenkins will send emails to the specified recipients whenever a certain important event occurs, such as:

Failed build.

**Credentials** 

- 2. Unstable build.
- 3. Successful build after a failed build, indicating that a crisis is over.
- 4. Unstable build after a successful one, indicating that there's a regression.

### Allows storing credentials in Jenkins. Provides a standardized API for other plugins to store and retrieve different types of credentials. [12]

### Monitoring external jobs

Adds the ability to monitor the result of externally executed jobs. [13]

### **SSH Slaves**

This plugin allows managing slaves running on \*nix machines over SSH.<sup>[14]</sup> It adds a new type of slave launch method. This launch method will

- 1. Open a SSH connection to the specified host as the specified username,
- 2. Check the default version of java for that user,
- 3. [not implemented yet] If the default version is not compatible with Jenkins's slave.jar, try to find a version of java that is, 4. Once it has a suitable version of java, copy the latest slave.jar via SFTP (falling back to scp if SFTP is not available),
- 5. Start the slave process.

Javadoc This plugin adds Javadoc support to Jenkins. This functionality used to be a part of the core, but as of Jenkins 1.431, it was split off into separate plugins.<sup>[15]</sup>

The plugin enables the selection of "Publish Javadoc" as Post-build action, specifying the directory where the Javadoc is to be gathered and if retention is expected for each successful build.

## Security

Jenkins' security depends on two factors: access control and protection from external threats. Access control can be customized via two ways, user authentication and authorization. Protection from external threats such as CSRF attacks and malicious builds is supported as well. [16]

## Awards and recognition

■ InfoWorld Bossie Award (Best of Open Source Software Award) in 2011.<sup>[17]</sup>

secontrol-for-java-projects). Stack Overflow. Retrieved January 17, 2011.

Received Geek Choice Award in 2014.<sup>[17]</sup>

See also

Comparison of continuous integration software

## References

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# **External links**

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