

CI Feature Matrix

There are many [Continuous Integration](#) systems available. This page is an attempt to keep an unbiased comparison of as many as possible of them (see another comparison on [Wikipedia](#)). The goals are:

- Make it easier to choose an appropriate CI tool for your project.
- "Healthy competition aid" for the people involved in the development of these various CI systems.

Note: If you want a new feature in one of these, please use the respective project's issue trackers. Don't add feature requests here.

Note: This is starting as a straight copy of the document at [codehaus](#) since that word is that it will be archived (see comments on the page at codehaus).

Legend:

- 🟢 The feature exists
- 🟡 The feature exists, but is buggy or not well tested
- 🔵 The feature is planned for the near future
- 🔴 The feature doesn't exist

Project info	CruiseControl	CruiseControl.NET	CruiseControl.rb	Cruise	CI Factory	Drumbeat CI	Tinderbox & Tinderbox2	BuildBot	Anthill Professional	Anthill	Bamboo	Luntbuild professional	LuntBuild	Gump	Continuum	Sin	OpenMake Meister	OpenMake Mojo	Parabuild	Tinderbox 3	Pulse	TeamCity (EAP)	Hudson	FinalBuilder Server	Zed	easyCIS	RedJack	ElectricCommander	Project info	
Project origin	ThoughtWorks	ThoughtWorks	ThoughtWorks	ThoughtWorks	Jay Flowers	Timpani Software	Mozilla Project	Brian Warner	Urbancode	Urbancode	Atlassian	PMEase	PMEase	Apache Gump	Apache	CSH Consult	OpenMake Software	OpenMake Software	Viewtier Systems	John Keiser	Zutubi	JetBrains	java.net	YSoft Technologies	Hericus Software	Vaclav Zahradnik	Michal Nowikowski	Electric Cloud	Project origin	
Open Source	🟢	🟢	🟢	🔴	🟢	🔴	🟢	🟢	🔴	🟢	🔴 Source provided to customers	🔴	🟢	🟢	🟢	🟢	🔴	🔴	🔴	🟢	🔴	🔴 - core 🟢 - selected plugins	🟢	🔴	🔴	🔴	🟢	🔴	Open Source	
Implementation language	Java	C#	Ruby	Java	C#	C#	Perl	Python	Java	Java	Java	Java	Java	Java Python	Java	C#	Java, C++, C, C#, JSP	Java, C++, C, C#, JSP	Java	Perl	Java	Java	C#	Java	C#	Python	Mostly Java	Implementation language		
Free	🟢	🟢	🟢	Free edition available	🟢	🔴 Free 2-user version	🟢	🟢	🔴 Free for Open Source Projects	🟢	🔴 Free for Open Source Projects and Community	🔴 Free for Open Source Projects	🟢	🟢	🟢	🟢	🔴	🟢	🔴 Free for Open Source Projects	🟢	🔴 Free for Small Teams and Open Source Projects	🟢	🔴	🔴 Free Community Edition	🟢	🟢	🟢	🔴	Free	
Issue tracker	JIRA	JIRA	Lighthouse	Mingle	Google	?	Bugzilla	Trac	private	JIRA	JIRA	Supports	Javaforge	JIRA	JIRA	🔴	JIRA	JIRA	Official support	Bugzilla	Jira	JetBrains Tracker	java.net	🔴	private	private		private	Issue tracker	
Online demo	here	here	here	here	here	here	Working implementation	here	Request or Five Minute Intro	🔴	Building Open Source projects	here Use demo/domo	?	?	here	Eval download	Online Demo	Online Demo	Working implementation	🔴	☐	Online Demo	here	Live Demo	Live Demo	here		Online demo	Online demo	
Number of active developers	5	4	5+	?	1+	5	?	5+	?	-	4+	?	3	?	4	1	5-10	5-10	?	?	2	12	5-10 (core) 20+ (plugins)	?	?	1	1	?	Number of active developers	
SCM support	CruiseControl	CruiseControl.NET	CruiseControl.rb	Cruise	CI Factory	Drumbeat CI	Tinderbox & Tinderbox2	BuildBot	Anthill Professional	Anthill	Bamboo	Luntbuild professional	LuntBuild	Gump	Continuum	Sin	OpenMake Meister	OpenMake Mojo	Parabuild	Tinderbox 3	Pulse	TeamCity (EAP)	Hudson	FinalBuilder Server	Zed	easyCIS	RedJack	ElectricCommander	SCM support	
AccuRev	🟢	🟢	🔴	🔴	🔴	🔵	🔴	🔴	🟢	🔴	🟢 plugin	🔵	🟢	?	🟢	🔴	🟢	🟢	🟢	🔴	🔴	🟢 plugin	🟢 plugin	🟢	🔴	🔴	🔴	🟢	AccuRev	
AlienBrain	🟢	🟢	🔴	🔴	🔴	?	?	🔴	🔴	🔴	🔴	?	?	?	?	?	🔴	🔴	?	?	🔴	🔴	🔴	🟢	🔴	🔴	🔴	🔴	AlienBrain	
Bazaar	🔴	🔴	🔴	🔴	🔴	?	?	🟢	🔴	🔴	🔴	?	?	?	🟢	?	🔴	🔴	?	?	🔴	🟢 plugin	🟢 plugin	🔴	🔴	🔴	🔴	🔵	🔴	Bazaar
BitKeeper	🔴	🟢	🔴	🔴	🔴	?	?	🔴	🔴	🔴	🔴	?	?	?	?	?	🔴	🔴	?	?	🔴	🔴	🟢 plugin	🔴	🔴	🔴	🔴	🔴	BitKeeper	
ClearCase	🟢	🟢	🔴	🔴	🔴	🔵	🔴	🔴	🟢	🔴	🟢 plugin	🟢	🟢	?	🟢	🔴	🟢	🟢	🟢	🔴	🔴	🟢	🟢 plugin	🔵	🟢	🔴		🟢	ClearCase	
CA Harvest	🟢	🔴	🔴	🔴	🔴	?	?	🔴	🟢	🔴	🔴	?	?	?	?	?	🟢	🟢	?	?	🔴	🔴	🟢 plugin	🔴	🔴	🔴	🔴	🔴	CA Harvest	
CM Synergy	🟢	🟢		🔴	🔴	?	?	🔴	🟢	🔴	🔴	?	?	?	?	?	🟢	🟢	?	?	🔴	🔴	🟢 plugin	🔴	🔴	🔴	🔴	🟢	CM Synergy	
CVS	🟢	🟢	🔴	🔴	🔴	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🔴	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🔴	🔴	🔵	CVS	
Dimensions	🔴	🔴	🔴	🔴	🔴	?	?	🔴	🟢	🔴	🔴	?	?	?	?	?	🟢	🟢	?	?	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔵	Dimensions
"File system SCM"	🟢	🟢	🔴	🔴	🔴	🔵	🔴	🔴	🟢	🟢	🔴	🟢	🟢	?	🟢	🔴	🟢	🟢	🟢	🔴	🔴	🔴	🟢 plugin	🔴	🔴	🟢	🔵	🟢	"File system SCM"	
Git	🟢	🔴	🔵	🟢	🔴	?	?	🟢	🟢	🔴	🟢 plugin	?	?	?	🟢	?	🟢	🟢	?	?	🟢	🟢	🟢 plugin	🔴	🔴	🔴	🔵	🟢	Git	
HTTP file	🟢	🔴	🔴	🔴	🔴	?	🔴	🔴	🔴	🔴	🔴	🔴	🔴	?	🔴	🔴	🔴	🔴	?	?	🔴	🔴	🟢 plugin	🟢 (via process trigger)	🔴	🔴	🔴	🔵	🔴	HTTP file
Mercurial	🟢	🔴	🔴	🟢	?	?	?	🟢	🟢	🔴	🟢 plugin	?	?	?	🟢	?	🔴	🔴	?	?	?	🟢	🟢 plugin	🔴	🔴	🔴	🔴	🟢	Mercurial	
MKS	🟢	🟢	🔴	🔴	🔴	🔵	🔴	🔴	🟢	🟢	🔴	🔴	🟢	?	?	🔴	🟢	🟢	🟢	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🔴	🟢	MKS	
Perforce (p4)	🟢	🟢	🔴	🟢	🟢	🟢	🔴	🟢	🟢	🟢	🟢	🟢	🟢	?	🟢	🔴	🟢	🟢	🟢	🔴	🟢	🟢	🟢 plugin	🟢	🟢	🔴		🟢	Perforce (p4)	
PVCS	🟢	🟢	🔴	🔴	🔴	🟢	🔴	🔴	🟢	🟢	🔴	🔴	🔴	?	?	🔴	🟢	🟢	🟢	🔴	🔴	🔴	🟢 plugin	🔴	🔴	🔴	🔴	🔴	PVCS	
SourceGear Vault	🔴	🟢	🔴	🔴	🟢	🔵	🔴	🔴	🟢	🔴	🔴	🔴	🔴	?	?	🔴	🔴	🔴	🟢	🔴	🔴	🟢 plugin	🔴	🟢	🔴	🔴	🔴	🔴	SourceGear Vault	
StarTeam	🟢	🟢	🔴	🔴	🔴	🔵	🔴	🔴	🟢	🟢	🔴	🟢	🟢	?	🟢	🔴	🟢	🟢	🟢	🔴	🔴	🟢	🟢 plugin	🟢	🟢	🔴	🔴	🟢	StarTeam	

Kill builds	✔	✘		✔	✘	✔	✘	✔	✔	✘	✔	✔	✔	?	!	✘	✘	✘	✔	✘	✔	✔	✔	✔	!	✔		✔	Kill builds	
Pause builds	✔	✔		✔	✘	!	✘	✘	✔	✘	✘	✘	✔	?	!	✘	✘	✘	✔	✘	✔	✔	✘	✔	!	✘		✘	Pause builds	
Access to build artifacts	✔	✘		✔	✔	!	✔	✔	✔	✔	✔	✔	✔	?	✔	✘	✘	✘	✔	✔	✔	✔	✔	!	✔	✔		✔	Access to build artifacts	
Browse CI's working copy	✘	✘	✔	✘	✘	?	✘	✘	✘	✘	✔	✘	✘	?	✔	✘	✘	✘	!	✘	✔	✘	✔	✘	✘	✘	!	n/a	Browse CI's working copy	
Delete CI's working copy	✘	!		✘	✘	?	✘	✘	✔	✘	✔	✘	✘	?	✔	✘	✘	✘	✔	✘	✔	✔	✔	✘	✔	✘		n/a	Delete CI's working copy	
Search in builds	✘	✘		✘	✘	✔	✘	✘	✔	✘	✘	✔	✔	?	?	✘	✘	✘	✔	✘	✘	✔	✘	✘	✘	✔		✘	Search in builds	
Historic graphs	✔	✘		✘	✔	✔	✘	✔	✔	✘	✔	✘	✘	?	!	✘	✔	✔	✔	✘	✔	✔	✔	✔	!	✔		✔	Historic graphs	
Self-updating web page	✔	✔	✔	✔	✔	✔	✘	✔	✔	✔	✔	✔	✔	?	✔	✔	✔	✔	✔	✔	✘	✔	✔	✔	!	✔		✔	Self-updating web page	
Multi project support	✔	✔		✔	✔	✔	✘	✘	✔	✔	✔	✔	✔	✔	✔	✘	✘	✘	✔	✘	✔	✔	✔	✔	✔	✔	!	✔	Multi project support	
Multi project view	✔	✔		✔	✔	✔	✘	✘	✔	✔	✔	✔	✔	?	✔	✔	✘	✘	✔	✘	✔	✔	✔	✔	✔	✔	!	✔	Multi project view	
Add/remove agent machines (for distributed builds)	?	?		✔	✘	?	✘	✘	✔	✘	✔	?	?	?	?	?	?	✘	✘	✔	✔	✔	✔	✔	✘	✔	✔	✔	Add/remove agent machines (for distributed builds)	
Directly supported build tools	CruiseControl	CruiseControl.NET	CruiseControl.r.b	Cruise	CI Factory	Drumbeat CI	Tinderbox & Tinderbox2	BuildBot	Anthill Professional	Anthill	Bamboo	Luntbuild professional	LuntBuild	Gump	Continuum	Sin	OpenMake Meister	OpenMake Mojo	Parabuild	Tinderbox 3	Pulse	TeamCity (EAP)	Hudson	FinalBuilder Server	Zed	easyCIS	RedJack	ElectricCommander	Directly supported build tools	
Shell / command script	✔	✔		✔	✔	✔	✔	✔ Via command line	✔	✘	✔	✔	✔	?	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔ via FinalBuilder	✔	✔ via other tool	✔	✔	Shell / command script	
Ant	✔	✘		✔	✔	!	✘	✔ Via command line	✔	✔	✔	✔	✔	✔	✔	✘	✔	✔	✔	✘	✔	✔	✔	✔ via FinalBuilder	Via command line	✔ via other tool		✔	Ant	
Groovy	✘	✘		Via command line	✘	✘	✘	✔ Via command line	✔	✘	✔ Grails Plugin	✘	✘	✘	✘	✘	✘	✘	✔	✘	✘	✘	✔ plugin	✘	Via command line	✔ via other tool		✔	Groovy	
OpenMake Meister	✔	✔						✔ Via command line	✘	✘	✔ Via command line						✔	✔					✔ via command line			✔ via other tool			OpenMake Meister	
Maven	✔	✘		Via command line	✘	!	✘	✔ Via command line	✔	✘	✔	✔	✔	✔	✔	✘	✔	✔	✔	✘	✔	✘	✔	✘	Via command line	✔ via other tool		✔	Maven	
Maven2	✔	✘		Via command line	✘	!	✘	✔ Via command line	✔	✘	✔	!	✔	✘	✔	✘	✔	✔	✔	✘	✔	✔	✔	✘	Via command line	✔ via other tool		✔	Maven2	
Make	✘	✘		Via command line	✘	✔	✔	✔ Via command line	✔	✘	✔ Via command line	?	✘	?	✔	✘	✔	✔	✔	✔	✔	✔	✔ via command line or plugin	✘	✘	Via command line	✔ via other tool		✔	Make
MsBuild	?	✔		Via command line	✔	?	?	✔ Via command line	✔	✘	✔	?	?	?	?	?	✔	✔	✔	?	✔	✔	✔ plugin	✔ via FinalBuilder	Via command line	✔		✔	MsBuild	
NAnt	✔	✔		✔	✔	✔	✘	✔ Via command line	✔	✘	✔	!	✔	?	✔	✘	✔	✔	✔	✘	✔	✔	✔ plugin	✔ via FinalBuilder	Via command line	✔		✔	NAnt	
Rake (Ruby)	?	?	✔	✔	?	?	?	✔ Via command line	!	Via command line	✔ Via command line	?	?	?	?	?	✘	✘	✔	?	?	✔	✔ plugin	✘	Via command line	✔ via other tool		✔	Rake (Ruby)	
Visual Studio ('devenv')	✘	✔		Via command line	✔	✔	✘	✔ Via command line	✔	✘	✔	?	✘	?	✘	✘	✔	✔	✔	✘	✔	✘	✘	✔ via FinalBuilder	Via command line	✔		✔	Visual Studio ('devenv')	
FinalBuilder	✘	✔		Via command line	✔	✘	✘	✔ Via command line	!	Via command line	✔ Via command line	✘	✘	✘	✘	✘	✘	✘	✔	✘	✘	✘	✘	✔	Via command line	✔ via other tool		?	FinalBuilder	
Issue & PM integrations	CruiseControl	CruiseControl.NET	CruiseControl.r.b	Cruise	CI Factory	Drumbeat CI	Tinderbox & Tinderbox2	BuildBot	Anthill Professional	Anthill	Bamboo	Luntbuild professional	LuntBuild	Gump	Continuum	Sin	OpenMake Meister	OpenMake Mojo	Parabuild	Tinderbox 3	Pulse	TeamCity	Hudson	FinalBuilder Server	Zed	easyCIS	RedJack	ElectricCommander	Issue & PM integrations	
Bugzilla	✘	✘		✔	✘	✘	✘	✘	✔	✘	✘	!	✘	?		✘	✘	✘	✔	✘	✔	✔	✔ plugin	✘	✘	✘		!	Bugzilla	
ClearQuest	?	?		?	?	?	?	✘	✔	✘	✘	?	?	?	?	?	✔	✔	?	?	?	✘	✘	✘	✘	✘	✘	✘	!	ClearQuest
Confluence	✘	✘		✔	✘	!	✘	✘	✘	✘	✔	✘	✘	?	✘	✘	✘	✘	✔	✘	✘	✘	✘	✘	✘	✘	✘	✘	✘	Confluence
JIRA	✘	✘		✔	✘	!	✘	✘	✔	✘	✔	!	✘	?		✘	✔	✔	✔	✘	✔	✔	✔ plugin	✘	✘	✘	✘	✔	JIRA	

Configuration			b				Tinderbox2	t	Professional			professiona		m		Meister	Mojo		3		(EAP)		Server			er	Configuration			
Windows installer	✓	✓		✓	✓	✓	✗	✓	✓	✗	✓	✗	✓	?	!	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	Windows installer		
Self contained distribution (except SCM clients)	✓	✓	✓	✓	✓	✓	✗	✓	✗	✗	✓	✓	✓	?	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✗	✓	✓	Self contained distribution (except SCM clients)		
Additional dependencies	JRE, SCM client	.NET Runtime, IIS, SCM client		SCM client	.NET Runtime, IIS, SCM client, depends on the packages you choose	.NET Runtime, SQL Server (MSDE Included in distribution)	Perl, CVS	Python, Twisted	JRE, SCM client	JDK, Servlet container, SCM client	JRE	jdk, SCM client	jdk,tomcat, SCM client	?	JRE, SCM client	Subversion, .NET runtime/IIS or Mono/XSP	JRE, Perl, SCM Client	JRE, Perl, SCM Client	✓	Perl, CVS, SCP	JDK, some SCM clients	JRE, some SCM clients	JRE	.Net, FinalBuilder, IIS, ASP.NET AJAX Ext.	JRE	.NET, MS chart controls, IIS, SQL server	Python, SCM clients	JRE	Additional dependencies	
Execution platform	JVM	Windows, .NET, Mono		JVM (bundled)	Windows .Net	Windows, .NET, Mono	Perl	Any (Python)	JVM	JVM	JVM	JVM	JVM	?	JVM	Windows, Linux	Windows, AIX, Solaris, HP-UX, Linux, z/OS	Windows, AIX, Solaris, HP-UX, Linux, z/OS	Windows, Unix, Linux, Mac OS X, Solaris, HP UX	Perl	JVM	JVM	JVM	Windows	JVM	Windows	Any with Python	Any	Execution platform	
Project platform (what it can build)	Java + anything Ant/Maven/NAnt can build	.NET or anything with a command line interface build		anything with a command line interface	.Net, Java, C++, VB6	Any language	Any language	Any language	Any language	Any language with supplied ant wrapper	Any language	Any language	Any language with supplied ant wrapper	?	Any language	Any language	Control Compile and Linker calls for any language or executes pre-written build script	Execute pre-written compile/link script for any language	Any language	!	Any language	Any Language	Any Language	Any language	Any Language	Any language	Visual Studio solutions, Anything else	Any command line	Any language	Project platform (what it can build)
Preferred build tool	Ant, Maven	Nant		Ant, Nant, Rake	MSBuild, Ant, devenv	NAnt	Make	Any build tool	Any build tool	Ant	Any build tool	Any build tool	Ant, Maven	?	Maven 2	Any build tool	Openmake Meister	Any build tool	Any build tool	Make	Any build tool	Any	Any	FinalBuilder	Any	MSBuild, NAnt	Any	Any	Preferred build tool	
No need to modify build scripts	✓	✓		✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	?	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	No need to modify build scripts	
Supports multiple projects	✓	✓		✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	?	✓	✗	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	Supports multiple projects	
Automatic configuration from build script	✗	✗		?	N/A, it is automatic, there is no need for you to provide a build script	✓	✗	✗	✗	✗	✓	✗	✗	✗	✓	Maven only	✗	✓	✓	✗	✓	✗	✗	✗	✗	✓	?	Automatic configuration from build script		
Text file configuration	✓ XML	✓ XML	✓ YML	✓ XML	✓ XML	Stored in SQL Db - XML input/export coming soon	✓	✓	✓ XML import/export. Database backend (Oracle, MySQL, Derby, Postgres, DB2 or SQL Server)	✗	✗	✗	✗	?	✗	✓	✓	✓	✓	✓	✗	✓ XML	XML	✓ via FinalBuilder	✓	✓ XML, import/export	✓ Yaml	✓ XML	Text file configuration	
	CruiseControl	CruiseControl.NET	CruiseControl.r	Cruise	CI Factory	Drumbeat CI	Tinderbox & Tinderbox2	BuildBot	Anthill Professional	Anthill	Bamboo	Luntbuild professional	LuntBuild	Gump	Continuum	Sin	OpenMake Meister	OpenMake Mojo	Parabuild	Tinderbox 3	Pulse	TeamCity	Hudson	FinalBuilder Server	Zed	easyCIS	RedJack	ElectricCommander		