Leiningen-Jenkins plugin Requirements Specification
Version: 0.1
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Project Overview:

This document provides requirements (and a wish list) for a proposed Leiningen plugin for the Jenkins Continuous Integration Server.

Jenkins (formerly named Hudson) is a Continuous Integration server that is used to automate the build/deployment of software projects.

Jenkins is implemented in Java.
Leiningen is build tool for projects written in Clojure (a dialect of Lisp), Clojure projects compile and run on the JVM.
I'm looking for someone to build a Jenkins plugin for Leiningen.

The plugin could be written in one of two languages:

- Java
- Clojure

I would prefer the plugin to be written in Clojure, but I am guessing that it will be more work to do so, it will take longer, and it will cost me more.
Still, I would welcome a bid/proposal for a Clojure implementation of this plugin.
Phil Hagelberg, the developer of Leiningen has experimented with a Clojure implementation, and he has graciously published his initial work here on GitHub.

If I can’t find someone to write the plugin in Clojure for a reasonable cost and in a reasonable time, then I will definitely proceed with a Java implementation project.

The ideal candidate for this job will have prior experience developing Jenkins or Hudson plugins.
I strongly urge potential bidders who have not previously developed a Jenkins plugin to read the following links:

- http://wiki.jenkins-ci.org/display/JENKINS/Extend+Jenkins
- http://wiki.jenkins-ci.org/display/JENKINS/Plugin+structure
- http://wiki.jenkins-ci.org/display/JENKINS/Extension+points
- http://javadoc.jenkins-ci.org/?hudson/tasks/Builder.html
- http://javadoc.jenkins-ci.org/?hudson/tools/ToolInstallation.html
- http://javadoc.jenkins-ci.org/?hudson/tools/ToolInstaller.html
- http://javadoc.jenkins-ci.org/?hudson/tools/ToolLocationTranslator.html
- http://javadoc.jenkins-ci.org/?hudson/tools/ToolProperty.html

I make no guarantee that the above are the correct or only interfaces that will need to be implemented.

Project Management:

My first choice is to find someone that will implement the plugin for a fixed price.

It is my goal/intention that the resulting plugin will be published as a free/open-source project.
I am happy to give named credit to the contractor who develops this plugin, so you can get public recognition for your effort.

During development, the plugin/project will be hosted on GitHub in the leiningen-jenkins repository.
Send me your github user id, and I'll add you to the repo.

When finished, and ready for publishing/release, we'll need to move the repo to the Jenkins community repo on GitHub.

The developer(s) should use the git-flow methodology and tools for managing git branches, releases, and tags. Gitflow CLI tools are

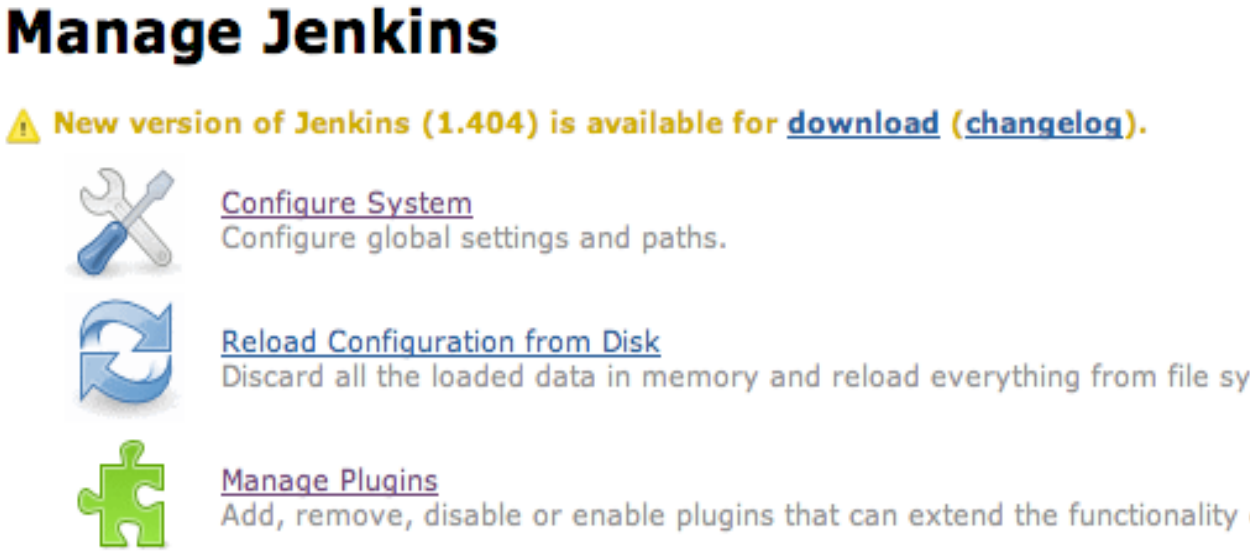
available here.
And here is a nice tutorial on this tool.

Requirements:

As mentioned above, the plugin will need to be hosted on the Jenkins community repo on GitHub.

This link details how the plugin must be organized and prepared for release.

The end user result of the plugin hosting/integration into Jenkins must result in the Leiningen plugin being visible as an option in the Jenkins "Manage Plugins" screen:



Manage Jenkins

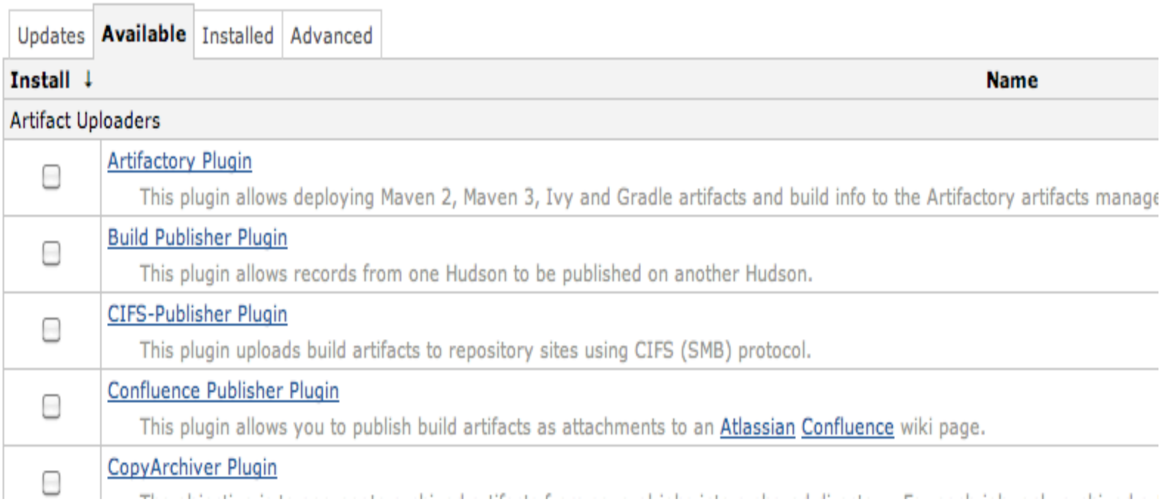
⚠ New version of Jenkins (1.404) is available for download (changelog).

Configure System
Configure global settings and paths.

Reload Configuration from Disk
Discard all the loaded data in memory and reload everything from file sy

Manage Plugins
Add, remove, disable or enable plugins that can extend the functionality

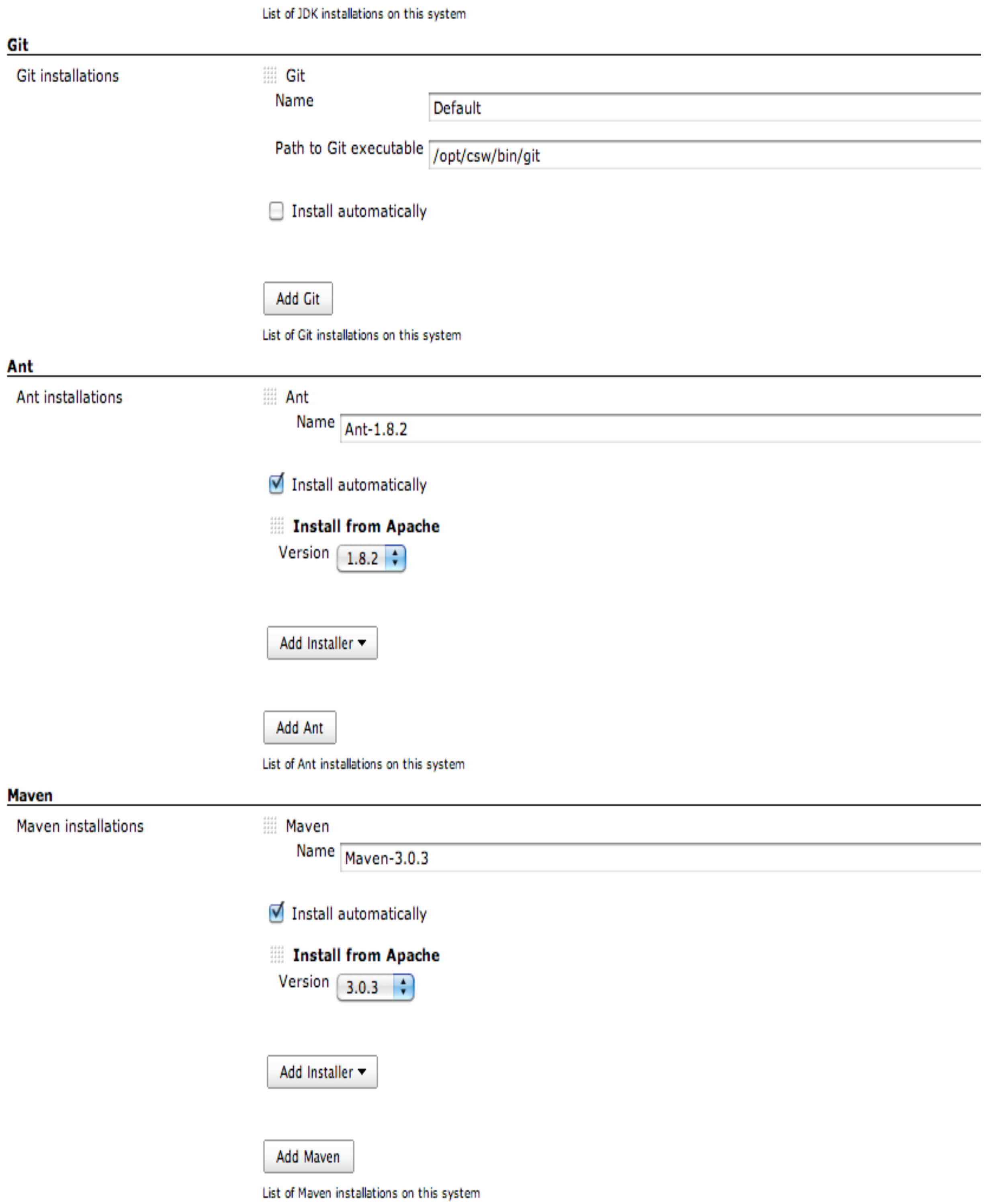
And the Leiningen plugin would appear in the list of available plugins:



Install ↓	Name
Artifact Uploaders	
□	Artifactory Plugin This plugin allows deploying Maven 2, Maven 3, Ivy and Gradle artifacts and build info to the Artifactory artifacts manage
□	Build Publisher Plugin This plugin allows records from one Hudson to be published on another Hudson.
□	CIFS-Publisher Plugin This plugin uploads build artifacts to repository sites using CIFS (SMB) protocol.
□	Confluence Publisher Plugin This plugin allows you to publish build artifacts as attachments to an Atlassian Confluence wiki page.
□	CopyArchiver Plugin

The Leiningen plugin must support the Jenkins tool auto installer.

After plugin installation (and resulting Jenkins server restart), the user will then go to the Jenkins “Configure System” page to install/configure Leiningen:



List of JDK installations on this system

Git

Git installations

Git

Name: Default

Path to Git executable: /opt/csw/bin/git

□ Install automatically

List of Git installations on this system

Ant

Ant installations

Ant

Name: Ant-1.8.2

☑ Install automatically

Install from Apache

Version: 1.8.2

List of Ant installations on this system

Maven

Maven installations

Maven

Name: Maven-3.0.3

☑ Install automatically

Install from Apache

Version: 3.0.3

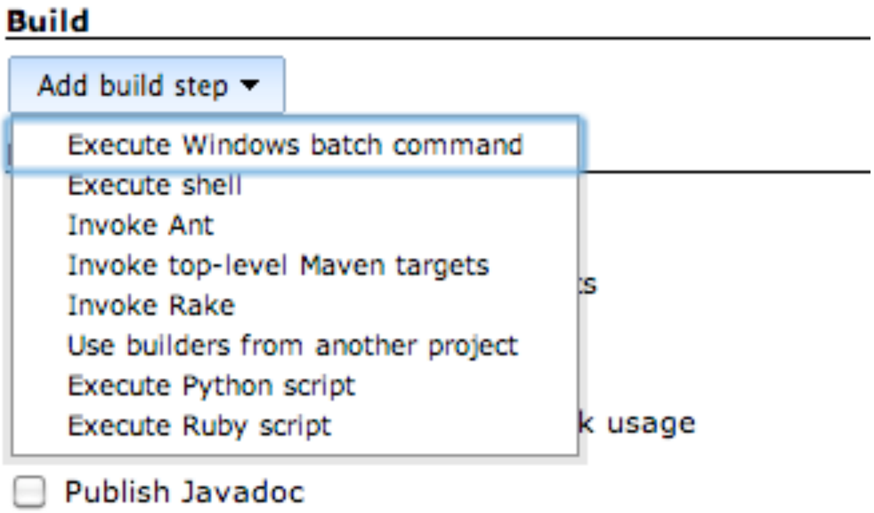
List of Maven installations on this system

At this point Leiningen should be another option for installation (similarly to how Ant and Maven appear above).

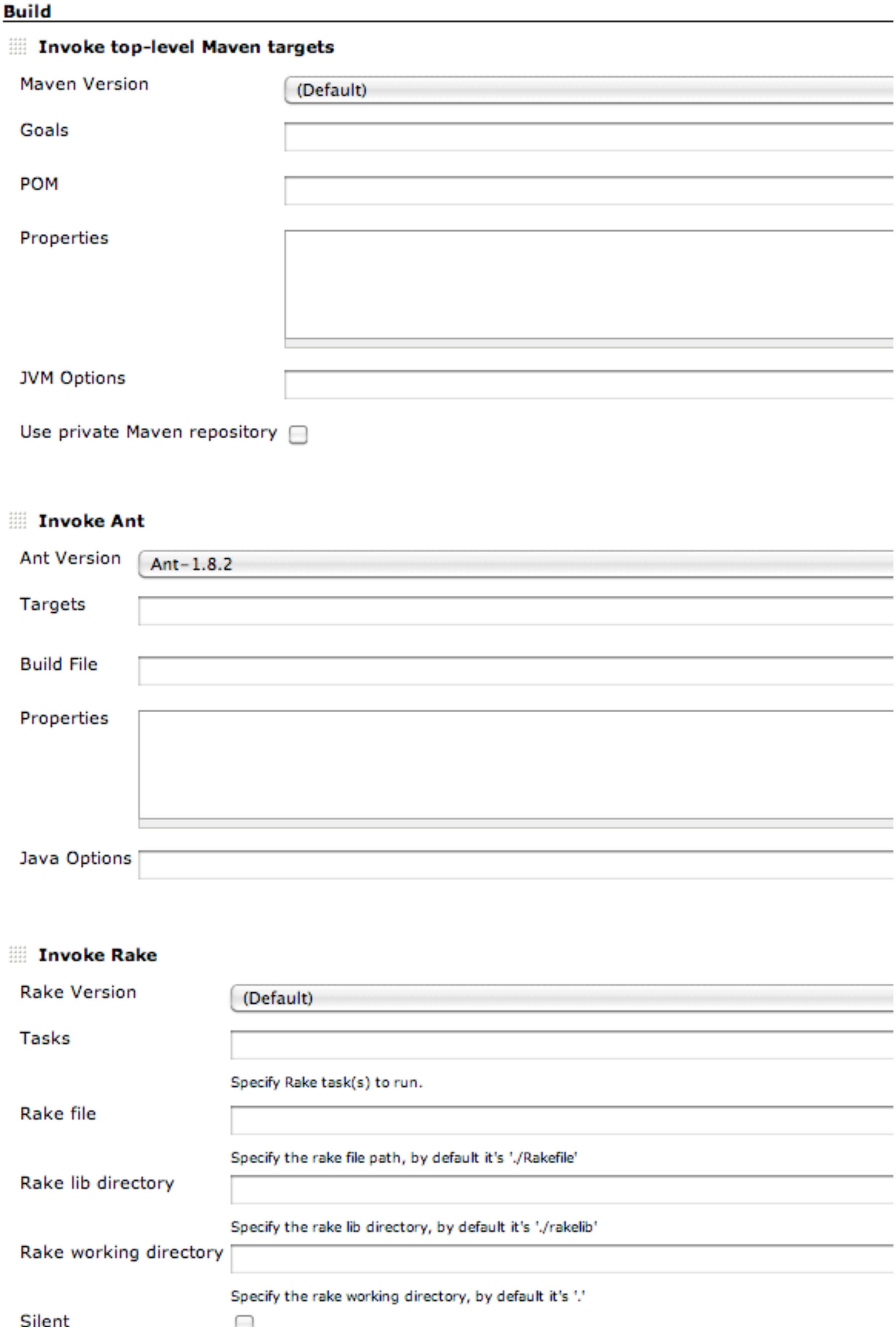
Like most other software projects, Leiningen has periodic versioned releases.
The plugin must support installing a variety of versions.

Installing Leiningen is not particularly difficult; it is a shell script and a jar file.
The specified version(s) should be obtained from the Leiningen repo on GitHub, and the lein shell script should be installed in the Jenkins ${JENKINS_HOME}/tool directory.

Finally, the user should now be able to create a new Jenkins build "Job" and specify a particular version of Leingingen as a build step:



After specifying a Leiningen build step, the user must be given a build step form similar to the Maven and Ant build/invoke forms below:



Build

Invoke top-level Maven targets

Maven Version: (Default)

Goals

POM

Properties

JVM Options

Use private Maven repository □

Invoke Ant

Ant Version: Ant-1.8.2

Targets

Build File

Properties

Java Options

Invoke Rake

Rake Version: (Default)

Tasks

Specify Rake task(s) to run.

Rake file

Specify the rake file path, by default it's './Rakefile'

Rake lib directory

Specify the rake lib directory, by default it's './rakelib'

Rake working directory

Specify the rake working directory, by default it's '.'

Silent □

Note that builders that support multiple versions provide a pulldown in the build step to select the particular version to use for this build. The Leiningen plugin must support this feature.

US English is the only required language to be supported by the Leiningen plugin.