

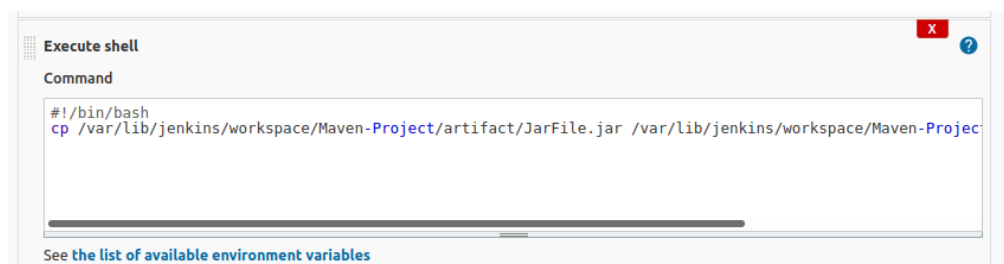
Task 1. Configuring CI builds on Jenkins

Review

Previously installed Jenkins server will be used for this task. Configuring single CI job using test project

Task

1. Create simple adhoc and automated Jenkins jobs
2. Automated build creates artefacts and stores them in directory \$JENKINS_HOME/artifacts
3. Adhoc build selects artefact from directory \$JENKINS_HOME/artifacts



4. Use Dynamic Choice plugin to select file name from any directory



Directory

▼

Content

▼

- AccountsService
- acpi-support
- alsa
- app-info
- apport
- apt
- aspell
- avahi-autoipd
- bluetooth
- bolt
- BrlAPI
- colord
- command-not-found
- dbus
- dhcp
- dictionaries-common
- dpkg
- emacs-common
- fprint

5. Configure discard build policy

Retry build after failure ✕ ?

☐ Rerun build for unstable builds as well as failures

Delay before retrying build

☒ Fixed


Fixed delay

☐ Progressive ?

Maximum number of successive failed builds ?

[Advanced...](#)

6. For automated build - configure SCM checkout code



The screenshot shows the 'Source Code Management' section of the Jenkins configuration page. The 'Git' option is selected under the 'None' or 'Git' radio buttons. Below, the 'Repositories' section contains a 'Repository URL' field with the value 'https://github.com/Kirill-Yat/Maven.git'. There are help icons (question marks) next to the 'Git' option, the 'Repositories' section, and the 'Repository URL' field.

7. For automated build - configure primary project build (gradle or maven) step

8. Add build steps to create .tar.gz artifact. Use Managed-script plugin. Artefact name should have build number



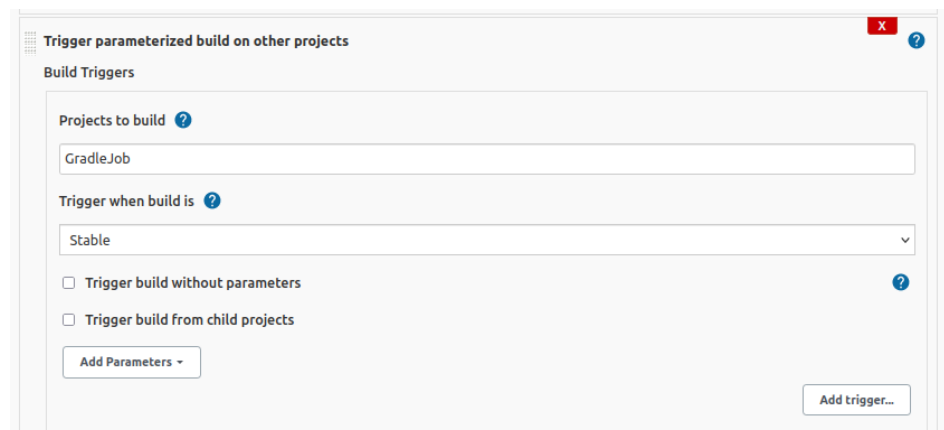
The screenshot shows the 'Execute managed script' build step configuration. The 'Script' dropdown menu is set to 'Archive'. Below the dropdown, there is a link 'view selected file' and the text 'No arguments required'. There is an unchecked checkbox for 'Define arguments'. At the bottom, there is a button 'Add post-build step'.

9. Archive artifacts inside automated build



The screenshot shows the 'Archive the artifacts' build step configuration. The 'Files to archive' field contains the value 'artifact/JarFile.jar'. There is an 'Advanced...' button at the bottom right.

10. Add Parametrized trigger to trigger other job



The screenshot shows the 'Trigger parameterized build on other projects' configuration. The 'Build Triggers' section has a 'Projects to build' field with the value 'GradleJob'. The 'Trigger when build is' dropdown menu is set to 'Stable'. There are two unchecked checkboxes: 'Trigger build without parameters' and 'Trigger build from child projects'. There is an 'Add Parameters' button and an 'Add trigger...' button at the bottom right.

11. Retrieve artifact in downstream project

Downstream Projects



12. Notify about build status (email)

Maven-Project - Build # 27 - Successful! Входящие x



address not configured yet <forjenkins1@gmail.com>

кому: мне ▾

Maven-Project - Build # 27 - Successful:

Check console output at <http://192.168.1.10/job/Maven-Project/27/> to view the results.

13. Add JUnit reports to build display page

Test Result

0 Failures (±0)

1 tests (±0)

Module	Fail	(diff)	Total	(diff)
srv.jenfins:projectformvn	0		1	

Task 2. Setting up Jenkins Cluster

Review

Setup distributed builds using Jenkins master-slave configuration.

Task

1. Prepare 3 servers for distributed builds (install necessary software and configure SSH communication). It is possible to setup all slaves on the same machine.
2. Install Jenkins on master server.
3. Create 2 slave nodes and configure it (labels, startup policy, location).

Name	Node2
Description	Job2
Number of executors	2
Remote root directory	/tmp/jenkins
Labels	ubuntu job_2
Usage	Use this node as much as possible
Launch method	Launch agents via SSH
Host	192.168.1.11
Credentials	kirill1/***** Add
Host Key Verification Strategy	Manually trusted key Verification Strategy
	<input type="checkbox"/> Require manual verification of initial connection

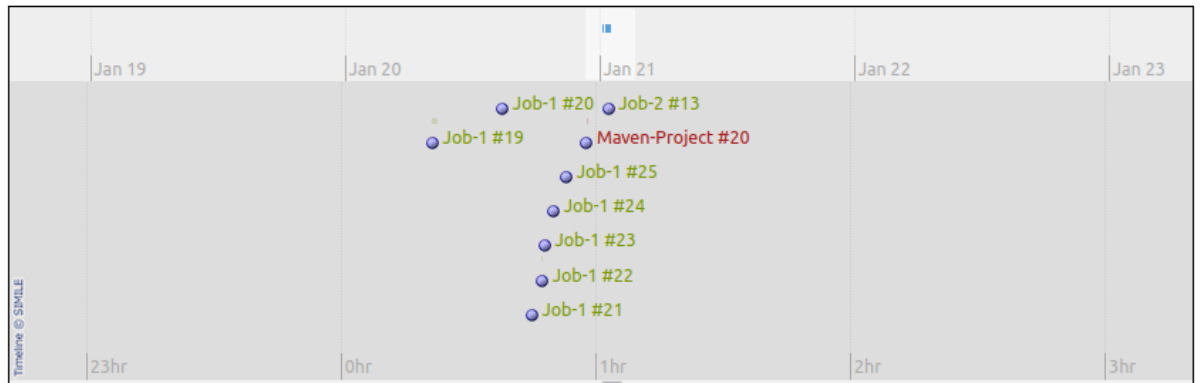
4. Configure 3 jobs so that Job1 runs on master, Job2 runs on slave 1 (node1) and Job3 runs on slave 2 (node2) only.

5. Execute 3 jobs at the same time.



Build History on Node1

This history is not guaranteed to include all subtasks executed on the node, e.g. Jenkins Pipeline subtasks will not be displayed.



Build	Time Since ↑	Status
Job-2 #13	26 sec	stable

Build Triggers

- ☐ Trigger builds remotely (e.g., from scripts)
- ☐ Build after other projects are built
- ☒ Build periodically

Schedule

3 1 * * *