[TestAutomationGuruA technical blog on test automation](http://www.testautomationguru.com/" \o "TestAutomationGuru)

1. [Selenium](http://www.testautomationguru.com/selenium/)
2. [JMeter](http://www.testautomationguru.com/jmeter/)
3. [DevOps](http://www.testautomationguru.com/category/ci-cd/)
4. [Docker](http://www.testautomationguru.com/category/docker/)
5. [Best Practices](http://www.testautomationguru.com/category/best-practices/)
6. [Downloads](http://www.testautomationguru.com/downloads/)
7. [About Me](http://www.testautomationguru.com/about-me/)

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| --- |
| Selenium  ***TestAutomationGuru*** has many articles on Selenium WebDriver, Infrastructure Setup, best practices etc.   * [All](http://www.testautomationguru.com/category/webdriver/" \t "_blank) (all the selenium related articles – ordered by recent articles first)   **Building Frameworks:**   * [How To Build Test Framework](http://www.testautomationguru.com/best-practices-building-robust-test-automation-framework" \t "_blank)   **Designing Page Objects:**   * [Advanced Page Object Design](http://www.testautomationguru.com/arquillian-graphene-page-fragments/" \t "_blank) * [Page Synchronization / AJAX Handling Using Awaitility](http://www.testautomationguru.com/selenium-webdriver-how-to-wait-for-expected-conditions-using-awaitility/" \t "_blank) * [Fluent Style Page Object Design](http://www.testautomationguru.com/selenium-webdriver-how-to-design-page-objects-in-fluent-style/" \t "_blank) * [Fluent Style Business workflow design](http://www.testautomationguru.com/selenium-webdriver-how-to-design-test-business-workflows-in-fluent-style/" \t "_blank)   **Selenium & Docker Integration:**  **Selenium Grid:**   * [Disposable Selenium Grid Infrastructure Using Docker](http://www.testautomationguru.com/selenium-grid-setup-using-docker/" \t "_blank) * [Zalenium – Yet Another Dockerized Selenium Grid](http://www.testautomationguru.com/selenium-webdriver-disposable-selenium-grid-infrastructure-setup-using-zalenium/" \t "_blank)   **Selenium / Docker / Jenkinsfile:**   * [Selenium Docker Integration Through Jenkinsfile – Part 1 – Setting Up Tests & Dependencies](http://www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-1-setting-up-tests-and-dependencies/) * [Selenium Docker Integration Through Jenkinsfile – Part 2 – Building Docker Image & Pushing To Dockerhub](http://www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-2-building-docker-image-pushing-to-dockerhub/" \t "_blank) * [Selenium Docker Integration Through Jenkinsfile – Part 3 – Executing Tests Inside Docker Container](http://www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-3-executing-tests-inside-docker-container/" \t "_blank)   **Selenium/docker/Maven-Plugin:**   * [Running Automated Tests Inside Docker Container](http://www.testautomationguru.com/selenium-webdriver-how-to-run-automated-tests-inside-a-docker-container/" \t "_blank) * [Running Multiple Test Suites using Docker Compose](http://www.testautomationguru.com/selenium-webdriver-how-to-run-multiple-test-suites-using-docker-compose/" \t "_blank)   **Misc**:   * [Automating File Upload & Downloads with Docker](http://www.testautomationguru.com/selenium-webdriver-file-downloads-uploads-using-docker-grids/" \t "_blank) * [Distributing Docker Images](http://www.testautomationguru.com/selenium-webdriver-how-to-distribute-docker-images-part-3/" \t "_blank) * [Running Dockerized Docker Images Using Portainer](http://www.testautomationguru.com/selenium-webdriver-running-dockerizied-automated-tests-using-portainer/" \t "_blank)   **For Complex Design Issues:**   * [Factory Pattern](http://www.testautomationguru.com/selenium-webdriver-design-patterns-in-test-automation-factory-pattern/" \t "_blank) * [Decorator Design Pattern](http://www.testautomationguru.com/selenium-webdriver-design-patterns-in-test-automation-decorator-design-pattern/" \t "_blank) * [Strategy Design Pattern](http://www.testautomationguru.com/selenium-webdriver-design-patterns-in-test-automation-strategy-pattern/" \t "_blank) * [Template Method Design Pattern](http://www.testautomationguru.com/selenium-webdriver-design-patterns-in-test-automation-template-method-pattern/" \t "_blank) * [Proxy Method Design Pattern](http://www.testautomationguru.com/selenium-webdriver-design-patterns-in-test-automation-proxy-pattern/" \t "_blank) * [Chain Of Responsibility Design Pattern](http://www.testautomationguru.com/selenium-webdriver-design-patterns-in-test-automation-chain-of-responsibility-design-pattern/" \t "_blank) * [Execute Around Method Pattern](http://www.testautomationguru.com/selenium-webdriver-execute-around/" \t "_blank)   **TestNG & Test Data Setup:**   * [TestNG Test & Data Design](http://www.testautomationguru.com/selenium-webdriver-how-to-design-tests-test-data/" \t "_blank) * [Hybrid TestNG Framework](http://www.testautomationguru.com/selenium-webdriverreusable-tests-testng/" \t "_blank) * [Improved Test Assertions Using AssertJ](http://www.testautomationguru.com/selenium-webdriver-how-to-improve-your-assertions-using-assertj/" \t "_blank) * [Generating Test Data Using JFairy](http://www.testautomationguru.com/selenium-webdriver-how-to-generate-test-data-using-jfairy/" \t "_blank) * [Creating TestNG Suite XML From Spreadsheet](http://www.testautomationguru.com/selenium-webdriver-creating-testng-suite-xml-from-spreadsheet/" \t "_blank)   **Visual Validation:**   * [Charts & Graphs Validations](http://www.testautomationguru.com/selenium-webdriver-how-to-automate-charts-and-graphs-validation/" \t "_blank) * [Automated Visual Validation Using Ocular](http://www.testautomationguru.com/ocular-automated-visual-validation-for-selenium-webdriver-test-automation-frameworks/" \t "_blank) * [Responsive Web Design Testing](http://www.testautomationguru.com/selenium-webdriver-how-to-automate-responsive-design-testing/" \t "_blank)   **Multi Factor Authentication / EMail / SMS Validation:**   * [SMS](http://www.testautomationguru.com/selenium-webdriver-multi-factor-authentication-sms/) * [EMail](http://www.testautomationguru.com/selenium-webdriver-email-validation-with-disposable-email-addresses/)   **Best Practices:**   * [Improving Test Performances Using Parallel Assertions](http://www.testautomationguru.com/selenium-webdriver-improving-test-performance-using-java8-stream/" \t "_blank) * [Real Time Test Results Using ElasticSearch & Kibana](http://www.testautomationguru.com/selenium-webdriver-real-time-test-execution-results-using-elasticsearch-kibana/" \t "_blank) * [Skipping Tests Automatically Based On Defect Status](http://www.testautomationguru.com/selenium-webdriver-how-to-automatically-skip-tests-based-on-open-defects/" \t "_blank) * [Executing Tests In Multiple Test Environments](http://www.testautomationguru.com/selenium-webdriver-how-to-execute-tests-in-multiple-environments/" \t "_blank) * [Finding Broken Links](http://www.testautomationguru.com/selenium-webdriver-how-to-find-broken-links-on-a-page/" \t "_blank) * [Automatically Switch Between Browser Windows](http://www.testautomationguru.com/selenium-webdriver-automatic-switching-between-browser-windows-using-guice-method-interceptor/" \t "_blank) * [Dependency Injection Using Guice](http://www.testautomationguru.com/selenium-webdriver-dependency-injection-using-guice/" \t "_blank) * [Automated Download Browser Drivers & Setup](http://www.testautomationguru.com/selenium-webdriver-setting-up-the-browser-drivers-using-spacelift/" \t "_blank) |
| JMeter  **Dear Readers,**  ***TestAutomationGuru*** has many articles on JMeter, Infrastructure Setup, best practices etc. I tried to categorize and provide some important articles here which you might be interested in.     * [All](http://www.testautomationguru.com/category/jmeter/" \t "_blank) (all the selenium related articles – ordered by recent articles first)   **For Beginners:**   * [JMeter – Important Tips & Tricks](http://www.testautomationguru.com/jmeter-tips-tricks-for-beginners/" \t "_blank) * [JMeter – Understanding The Scope Of The Variables](http://www.testautomationguru.com/jmeter-understanding-the-scope-of-variables-sharing-among-threads-and-thread-groups/" \t "_blank)   **Performance Testing & Monitoring:**   * [Real Time Performance Test Results Using Grafana & InflxuDB – Part 1](http://www.testautomationguru.com/jmeter-real-time-results-influxdb-grafana/" \t "_blank) * [Real Time Performance Test Results Using Grafana & InflxuDB – Part 2](http://www.testautomationguru.com/jmeter-real-time-results-influxdb-grafana-part-2-adding-custom-fields/" \t "_blank) * [Collecting Server Performance Metrics Using Collectd](http://www.testautomationguru.com/jmeter-server-performance-monitoring-with-collectd-influxdb-grafana/" \t "_blank) * [Collecting JMX Metrics](http://www.testautomationguru.com/jmx-monitoring-using-collectd-influxdb-grafana/" \t "_blank) * [Collecting Server Performance Metrics](http://www.testautomationguru.com/jmeter-server-performance-metrics-collector/" \t "_blank) * [Centralized Logging Solution Using ElasticSearch & Kibana](http://www.testautomationguru.com/jmeter-centralized-logging-solution-in-distributed-testing-using-elasticsearch-beats-kibana/" \t "_blank)   **Performance Testing In Continuous Integration Process:**   * [JMeter + ANT + Jenkins Integration – Part 1](http://www.testautomationguru.com/jmeter-continuous-performance-testing-part1/" \t "_blank) * [JMeter + ANT + Jenkins Integration – Part 2](http://www.testautomationguru.com/jmeter-continuous-performance-testing-part2/" \t "_blank) * [Best Practices](http://www.testautomationguru.com/best-practices-jmeter-performance-testing-in-continuous-delivery-pipeline/" \t "_blank)   **Distributed Performance Testing Using Docker:**   * [Distributed Performance Testing Using Docker – Part 1](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker/" \t "_blank) * [Distributed Performance Testing Using Docker – AWS/Any Cloud](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker-in-aws/" \t "_blank) * [Scaling Out Load Generators Using Docker Compose](http://www.testautomationguru.com/jmeter-scaling-out-load-servers-using-docker-compose-in-distributed-load-testing/" \t "_blank) * [Sharing Test Data In Distributed Testing Using ReDis](http://www.testautomationguru.com/jmeter-make-data-sharing-easy-in-distributed-mode-using-redis/" \t "_blank)   **REST API Testing:**   * [Testing REST API Using JMeter](http://www.testautomationguru.com/how-to-test-rest-api-using-jmeter/" \t "_blank) * [REST API Testing Using Data Driven Approach](http://www.testautomationguru.com/jmeter-rest-api-testing-a-complete-data-driven-approach/" \t "_blank) * [MicroServices – Contract Testing](http://www.testautomationguru.com/best-practices-microservices-contract-testing/" \t "_blank)   **Test Scripts – Design Considerations:**   * [Creating Modular & Reusable Performance Test Scripts](http://www.testautomationguru.com/jmeter-modularizing-test-scripts/" \t "_blank) * [Executing Performance Test Scripts In Multiple Test Environments](http://www.testautomationguru.com/jmeter-manage-test-plan/" \t "_blank) * [Workload Model Design Using Little’s law](http://www.testautomationguru.com/jmeter-performance-testing-application-of-littles-law-to-workload-models/" \t "_blank) * [How To Distribute The Load In The Test Plan](http://www.testautomationguru.com/jmeter-user-load-distribution-using-throughput-controller/" \t "_blank) * [Executing Different Test Strategies](http://www.testautomationguru.com/jmeter-how-to-execute-different-performance-test-strategies/" \t "_blank) * [Response Data Extractors](http://www.testautomationguru.com/jmeter-response-data-extractors-comparison/" \t "_blank) * [JMeter – CSV Data Set Config vs Redis Data Set Config – Throughput Comparison](http://www.testautomationguru.com/jmeter-csv-data-set-config-vs-redis-data-set-config-throughput-comparison/" \t "_blank) * [Groovy vs Beanshell vs Java vs Javascript – which affects the performance of your tests?](http://www.testautomationguru.com/jmeter-post-processors-script-language-comparison/" \t "_blank)   **Extending JMeter – Custom Plugin Creation:**   * [Creating Custom Config Element – Property File Reader](http://www.testautomationguru.com/extending-jmeter-creating-custom-config-element-property-file-reader/" \t "_blank) * [Creating Custom Functions – String Joiner](http://www.testautomationguru.com/jmeter-extending-jmeter-creating-custom-functions/" \t "_blank) * [Custom Controller – Until Controller](http://www.testautomationguru.com/jmeter-until-controller/" \t "_blank) |
| [Selenium Docker Integration Through Jenkinsfile – Part 3 – Executing Tests Inside Docker Container](http://www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-3-executing-tests-inside-docker-container/) July 2, 2018 [6 comments](http://www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-3-executing-tests-inside-docker-container/#comments) Article  Overview: This is Part 3 of Selenium Docker Integration Through Jenkinsfile series. If you have not read the Part 1 & Part 2, I would request you to check below. Selenium Docker Integration Through Jenkinsfile – Part 1 – Setting Up Tests & Dependencies Selenium Docker Integration Through Jenkinsfile – Part 2 – Building Docker Image &  [Read More](http://www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-3-executing-tests-inside-docker-container/)  docker-volume-mapping-header [Selenium Docker Integration Through Jenkinsfile – Part 2 – Building Docker Image & Pushing To Dockerhub](http://www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-2-building-docker-image-pushing-to-dockerhub/) June 25, 2018 [4 comments](http://www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-2-building-docker-image-pushing-to-dockerhub/#comments) Article  Overview: This is Part 2 of Selenium Docker Integration Through Jenkinsfile series. If you have not read the Part 1, I would request you to check here. In this part, Lets see how to create a Dockerfile, build an Image using Dockerfile and push the image to Docker hub for distribution. Prerequisite: You have working project in GitHub  [Read More](http://www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-2-building-docker-image-pushing-to-dockerhub/)  docker-volume-mapping-header [Selenium Docker Integration Through Jenkinsfile – Part 1 – Setting Up Tests & Dependencies](http://www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-1-setting-up-tests-and-dependencies/) June 18, 2018 [No comments](http://www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-1-setting-up-tests-and-dependencies/#respond) Article  Overview: We already have seen how to create a disposable selenium grid at run time using Docker. How To Create A Disposable Selenium Grid Infrastructure using Docker How To Create A Disposable Selenium Grid Infrastructure using Docker – Using Zalenium In this article, We are going to see how to run our automated tests inside  [Read More](http://www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-1-setting-up-tests-and-dependencies/)  logo_zalenium_wide [Selenium WebDriver – Embedding Zalenium Live Preview In Jenkins](http://www.testautomationguru.com/embedding-zalenium-live-execution-in-jenkins/) June 11, 2018 [4 comments](http://www.testautomationguru.com/embedding-zalenium-live-execution-in-jenkins/#comments) Article  Overview: I have been using Docker a lot for my automated Selenium Webdriver test execution. I use Zalenium for the selenium grid. If you are not sure what Zalenium is, I would suggest you to take a look at this article first. Zalenium – Yet Another Dockerized Selenium Grid To dockerize your automated tests, check  [Read More](http://www.testautomationguru.com/embedding-zalenium-live-execution-in-jenkins/)  docker-sel-part-3-header [Selenium WebDriver – How To Distribute Docker Images – Part 3](http://www.testautomationguru.com/selenium-webdriver-how-to-distribute-docker-images-part-3/) April 2, 2018 [6 comments](http://www.testautomationguru.com/selenium-webdriver-how-to-distribute-docker-images-part-3/#comments) Article  Overview: The modern cloud infrastructure, continuous integration & deployment processes etc have completely changed the way how applications are deployed in production nowadays. In order to release new features faster in Production, you need to reduce time we take in the each phase of the SDLC. As an automation lead/architect, It could be your responsibility to  [Read More](http://www.testautomationguru.com/selenium-webdriver-how-to-distribute-docker-images-part-3/)  docker-volume-mapping-header [Selenium WebDriver – File Downloads & Uploads Using Docker Grids](http://www.testautomationguru.com/selenium-webdriver-file-downloads-uploads-using-docker-grids/) February 12, 2018 [8 comments](http://www.testautomationguru.com/selenium-webdriver-file-downloads-uploads-using-docker-grids/#comments) Article  Overview: TestAutomationGuru has released few articles on using docker for Selenium Grids & to run your automated inside the docker containers. This approach has a lot of advantages like saving your time from setting up your remote/cloud machines & dealing with dependency related issues. It is easily scalable as well! If you have not read below  [Read More](http://www.testautomationguru.com/selenium-webdriver-file-downloads-uploads-using-docker-grids/) [Selenium WebDriver – Running Dockerizied Automated Tests using Portainer](http://www.testautomationguru.com/selenium-webdriver-running-dockerizied-automated-tests-using-portainer/) September 11, 2017 [2 comments](http://www.testautomationguru.com/selenium-webdriver-running-dockerizied-automated-tests-using-portainer/#comments) Article  Overview: TestAutomationGuru has already released few articles on creating a docker image with your tests + all the dependencies and running them on a docker container as and when we want! Running Automated Tests Inside A Docker Container Running Multiple Test Suites using Docker Compose In the above articles, even if we had automated the process  [Read More](http://www.testautomationguru.com/selenium-webdriver-running-dockerizied-automated-tests-using-portainer/)  reg-compose-header [Selenium WebDriver – How To Run Multiple Test Suites Using Docker Compose – Part 2](http://www.testautomationguru.com/selenium-webdriver-how-to-run-multiple-test-suites-using-docker-compose/) August 28, 2017 [14 comments](http://www.testautomationguru.com/selenium-webdriver-how-to-run-multiple-test-suites-using-docker-compose/#comments) Article  Overview: The modern cloud infrastructure, continuous integration & deployment processes etc have completely changed the way how applications are deployed in production nowadays. In order to release new features faster in Production, you need to reduce time we take in the each phase of the SDLC. As an automation lead/architect, It could be your responsibility to  [Read More](http://www.testautomationguru.com/selenium-webdriver-how-to-run-multiple-test-suites-using-docker-compose/)  docker-container-test-header [Selenium WebDriver – How To Run Automated Tests Inside A Docker Container – Part 1](http://www.testautomationguru.com/selenium-webdriver-how-to-run-automated-tests-inside-a-docker-container/) August 21, 2017 [37 comments](http://www.testautomationguru.com/selenium-webdriver-how-to-run-automated-tests-inside-a-docker-container/#comments) Article  Overview: Testautomationguru already has few docker and selenium related articles which talks about setting up the dockerized selenium grid. Setting up Dockerized Selenium grid. Managing Dockerized Selenium Grid using Arquillian cube. Setting up Dockerized Selenium grid in AWS / Cloud using RancherOS Even if we have a selenium grid, we still need a host to run our tests – ie.. a  [Read More](http://www.testautomationguru.com/selenium-webdriver-how-to-run-automated-tests-inside-a-docker-container/) [Selenium WebDriver – How To Set Up Dockerized Selenium Grid in AWS / Cloud](http://www.testautomationguru.com/selenium-webdriver-how-to-manage-docker-grid-using-rancheros/) August 14, 2017 [1 comment](http://www.testautomationguru.com/selenium-webdriver-how-to-manage-docker-grid-using-rancheros/#comments) Article  Overview: We already have seen setting up JMeter Distributed Infrastructure using RancherOS.  We will see how to manage dockerized selenium grid using RancherOS. Rancher helps us to set up the grid in the local machine / AWS / any cloud. I would suggest you to read the above article on setting up the Rancher UI [Selenium WebDriver – Disposable Selenium Grid Infrastructure Setup using Zalenium](http://www.testautomationguru.com/selenium-webdriver-disposable-selenium-grid-infrastructure-setup-using-zalenium/) May 29, 2017 [No comments](http://www.testautomationguru.com/selenium-webdriver-disposable-selenium-grid-infrastructure-setup-using-zalenium/#respond) Article  Overview: We already have seen the challenges related to setting up the Selenium Grid infrastructure and how docker helps us in setting up a flexible/disposable/highly scalable selenium grid within few seconds in these articles below. Docker – Selenium Grid Setup Arquillian Cube – Managing Dockerized Selenium Grid In this article, We will see how Zalenium  [Read More](http://www.testautomationguru.com/selenium-webdriver-disposable-selenium-grid-infrastructure-setup-using-zalenium/)  cube-sel-grid [Selenium WebDriver – Managing Selenium Grid Infrastructure using Arquillian Cube](http://www.testautomationguru.com/selenium-webdriver-managing-selenium-grid-infrastructure-using-arquillian-cube/) April 24, 2017 [10 comments](http://www.testautomationguru.com/selenium-webdriver-managing-selenium-grid-infrastructure-using-arquillian-cube/#comments) Article  In the previous article, we saw how easily we could set up the selenium-grid infrastructure using docker. By using docker-compose file, we can setup the containers for the selenium grid. Then we can start our automated functional tests using the grid. Once the execution is done, we can issue a simple command to bring the entire selenium  [Read More](http://www.testautomationguru.com/selenium-webdriver-managing-selenium-grid-infrastructure-using-arquillian-cube/)  grid001 [Selenium WebDriver – How To Create A Disposable Selenium Grid Infrastructure using Docker](http://www.testautomationguru.com/selenium-grid-setup-using-docker/) April 17, 2017 [6 comments](http://www.testautomationguru.com/selenium-grid-setup-using-docker/#comments) Article  Selenium Grid – Overview: Selenium Grid is used to run our tests on different OS/browsers in parallel. It basically uses master-slaves (or hub-nodes) concept – where there is one master/hub and there are few slaves/nodes registered to the master/hub. When we send our tests to the master/hub for execution, based on the browser/OS requirements of  [Read More](http://www.testautomationguru.com/selenium-grid-setup-using-docker/)  rancher-creates-hosts [JMeter – Distributed Load Testing using Docker + RancherOS in Cloud](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker-rancheros-in-cloud/) December 19, 2016 [No comments](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker-rancheros-in-cloud/#respond) Article  Setting up the JMeter distributed test infrastructure for the performance testing is not very easy! We already have seen that Docker can help us here in setting up the infrastructure. If you have not read the articles of TestAutomationGuru, I would suggest you to check these. Distributed Load Testing using Docker Distributed Load Testing using  [Read More](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker-rancheros-in-cloud/)  jm-redis-06 [JMeter – How To Share Data In Distributed Load Testing](http://www.testautomationguru.com/jmeter-make-data-sharing-easy-in-distributed-mode-using-redis/) October 17, 2016 [4 comments](http://www.testautomationguru.com/jmeter-make-data-sharing-easy-in-distributed-mode-using-redis/#comments) Article  In this article, I would like to show how we can share data among all the JMeter servers in distributed mode. Problem Statement: If you have been running JMeter in distributed mode, you might already know that setting up all the JMeter servers with all the dependency is a pain. We already see that docker greatly simplifies  [Read More](http://www.testautomationguru.com/jmeter-make-data-sharing-easy-in-distributed-mode-using-redis/) [JMeter – Scaling out load generators using Docker Compose in distributed load testing](http://www.testautomationguru.com/jmeter-scaling-out-load-servers-using-docker-compose-in-distributed-load-testing/) September 26, 2016 [8 comments](http://www.testautomationguru.com/jmeter-scaling-out-load-servers-using-docker-compose-in-distributed-load-testing/#comments) Article  In this post, I would like to show how to create multiple instances of JMeter servers/slaves on demand using docker compose. I assume you have some idea on using docker in JMeter distributed load testing. If not, please read this post first. Docker Compose: As part of our application design, we might have a webserver, few app servers  [Read More](http://www.testautomationguru.com/jmeter-scaling-out-load-servers-using-docker-compose-in-distributed-load-testing/)  aws-docker-container-01 [JMeter – Distributed Load Testing using Docker in AWS](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker-in-aws/) August 15, 2016 [25 comments](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker-in-aws/#comments) Article  In the Previous post, We had learnt how to use docker in creating multiple containers running jmeter-server for distributed load testing. But we had created all the containers in the same host. Even if we can not use the single-host containers for performance testing with huge load, before pushing your performance test script related changes to  [Read More](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker-in-aws/)  jm-master-slave-host-docker [JMeter – Distributed Load Testing using Docker](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker/) August 1, 2016 [17 comments](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker/#comments) Article  Overview: A single JMeter instance might not be able to generate enough load to stress test your application. As this site shows, one JMeter instance will be able to control many other remote JMeter instances and generate larger load on your application. JMeter uses Java RMI [Remote Method Invocation] to interact with objects in a |
| Category: CI / CD / DevOps  grafana-metrics [Selenium WebDriver – Real Time Test Metrics Using Grafana & InfluxDB](http://www.testautomationguru.com/category/ci-cd/%20http:/www.testautomationguru.com/selenium-webdriver-real-time-test-metrics-using-grafana-influxdb/) July 9, 2018 [1 comment](http://www.testautomationguru.com/selenium-webdriver-real-time-test-metrics-using-grafana-influxdb/#comments) Article  Overview: Running automated regression on a daily basis as part of daily build is inevitable nowadays! It is cool to find & report the issues as soon as they are introduced. But it is very painful to maintain hundreds of automated tests & remote parallel execution! Once you have a huge automated regression test suite in place,  [Read More](http://www.testautomationguru.com/selenium-webdriver-real-time-test-metrics-using-grafana-influxdb/)  docker-volume-mapping-header [Selenium Docker Integration Through Jenkinsfile – Part 3 – Executing Tests Inside Docker Container](http://www.testautomationguru.com/category/ci-cd/%20http:/www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-3-executing-tests-inside-docker-container/) July 2, 2018 [6 comments](http://www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-3-executing-tests-inside-docker-container/#comments) Article  Overview: This is Part 3 of Selenium Docker Integration Through Jenkinsfile series. If you have not read the Part 1 & Part 2, I would request you to check below. Selenium Docker Integration Through Jenkinsfile – Part 1 – Setting Up Tests & Dependencies Selenium Docker Integration Through Jenkinsfile – Part 2 – Building Docker Image &  [Read More](http://www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-3-executing-tests-inside-docker-container/)  docker-volume-mapping-header [Selenium Docker Integration Through Jenkinsfile – Part 2 – Building Docker Image & Pushing To Dockerhub](http://www.testautomationguru.com/category/ci-cd/%20http:/www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-2-building-docker-image-pushing-to-dockerhub/) June 25, 2018 [4 comments](http://www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-2-building-docker-image-pushing-to-dockerhub/#comments) Article  Overview: This is Part 2 of Selenium Docker Integration Through Jenkinsfile series. If you have not read the Part 1, I would request you to check here. In this part, Lets see how to create a Dockerfile, build an Image using Dockerfile and push the image to Docker hub for distribution. Prerequisite: You have working project in GitHub  [Read More](http://www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-2-building-docker-image-pushing-to-dockerhub/)  docker-volume-mapping-header [Selenium Docker Integration Through Jenkinsfile – Part 1 – Setting Up Tests & Dependencies](http://www.testautomationguru.com/category/ci-cd/%20http:/www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-1-setting-up-tests-and-dependencies/) June 18, 2018 [No comments](http://www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-1-setting-up-tests-and-dependencies/#respond) Article  Overview: We already have seen how to create a disposable selenium grid at run time using Docker. How To Create A Disposable Selenium Grid Infrastructure using Docker How To Create A Disposable Selenium Grid Infrastructure using Docker – Using Zalenium In this article, We are going to see how to run our automated tests inside  [Read More](http://www.testautomationguru.com/selenium-docker-integration-through-jenkinsfile-part-1-setting-up-tests-and-dependencies/)  logo_zalenium_wide [Selenium WebDriver – Embedding Zalenium Live Preview In Jenkins](http://www.testautomationguru.com/category/ci-cd/%20http:/www.testautomationguru.com/embedding-zalenium-live-execution-in-jenkins/) June 11, 2018 [4 comments](http://www.testautomationguru.com/embedding-zalenium-live-execution-in-jenkins/#comments) Article  Overview: I have been using Docker a lot for my automated Selenium Webdriver test execution. I use Zalenium for the selenium grid. If you are not sure what Zalenium is, I would suggest you to take a look at this article first. Zalenium – Yet Another Dockerized Selenium Grid To dockerize your automated tests, check  [Read More](http://www.testautomationguru.com/embedding-zalenium-live-execution-in-jenkins/)  docker-sel-part-3-header [Selenium WebDriver – How To Distribute Docker Images – Part 3](http://www.testautomationguru.com/category/ci-cd/%20http:/www.testautomationguru.com/selenium-webdriver-how-to-distribute-docker-images-part-3/) April 2, 2018 [6 comments](http://www.testautomationguru.com/selenium-webdriver-how-to-distribute-docker-images-part-3/#comments) Article  Overview: The modern cloud infrastructure, continuous integration & deployment processes etc have completely changed the way how applications are deployed in production nowadays. In order to release new features faster in Production, you need to reduce time we take in the each phase of the SDLC. As an automation lead/architect, It could be your responsibility to  [Read More](http://www.testautomationguru.com/selenium-webdriver-how-to-distribute-docker-images-part-3/)  kibana-realtime-header [Selenium WebDriver – Real Time Test Execution Results Using Elasticsearch & Kibana](http://www.testautomationguru.com/category/ci-cd/%20http:/www.testautomationguru.com/selenium-webdriver-real-time-test-execution-results-using-elasticsearch-kibana/) February 26, 2018 [14 comments](http://www.testautomationguru.com/selenium-webdriver-real-time-test-execution-results-using-elasticsearch-kibana/#comments) Article  Overview: Running automated regression on a daily basis as part of daily build is inevitable nowadays! It is cool to find & report the issues as soon as they are introduced. But it is very painful to maintain hundreds of automated tests & remote parallel execution! Once you have a huge automated regression test suite in place,  [Read More](http://www.testautomationguru.com/selenium-webdriver-real-time-test-execution-results-using-elasticsearch-kibana/)  docker-volume-mapping-header [Selenium WebDriver – File Downloads & Uploads Using Docker Grids](http://www.testautomationguru.com/category/ci-cd/%20http:/www.testautomationguru.com/selenium-webdriver-file-downloads-uploads-using-docker-grids/) February 12, 2018 [8 comments](http://www.testautomationguru.com/selenium-webdriver-file-downloads-uploads-using-docker-grids/#comments) Article  Overview: TestAutomationGuru has released few articles on using docker for Selenium Grids & to run your automated inside the docker containers. This approach has a lot of advantages like saving your time from setting up your remote/cloud machines & dealing with dependency related issues. It is easily scalable as well! If you have not read below  [Read More](http://www.testautomationguru.com/selenium-webdriver-file-downloads-uploads-using-docker-grids/) [Selenium WebDriver – Running Dockerizied Automated Tests using Portainer](http://www.testautomationguru.com/category/ci-cd/%20http:/www.testautomationguru.com/selenium-webdriver-running-dockerizied-automated-tests-using-portainer/) September 11, 2017 [2 comments](http://www.testautomationguru.com/selenium-webdriver-running-dockerizied-automated-tests-using-portainer/#comments) Article  Overview: TestAutomationGuru has already released few articles on creating a docker image with your tests + all the dependencies and running them on a docker container as and when we want! Running Automated Tests Inside A Docker Container Running Multiple Test Suites using Docker Compose In the above articles, even if we had automated the process  [Read More](http://www.testautomationguru.com/selenium-webdriver-running-dockerizied-automated-tests-using-portainer/)  reg-compose-header [Selenium WebDriver – How To Run Multiple Test Suites Using Docker Compose – Part 2](http://www.testautomationguru.com/category/ci-cd/%20http:/www.testautomationguru.com/selenium-webdriver-how-to-run-multiple-test-suites-using-docker-compose/) August 28, 2017 [14 comments](http://www.testautomationguru.com/selenium-webdriver-how-to-run-multiple-test-suites-using-docker-compose/#comments) Article  Overview: The modern cloud infrastructure, continuous integration & deployment processes etc have completely changed the way how applications are deployed in production nowadays. In order to release new features faster in Production, you need to reduce time we take in the each phase of the SDLC. As an automation lead/architect, It could be your responsibility to  [Read More](http://www.testautomationguru.com/selenium-webdriver-how-to-run-multiple-test-suites-using-docker-compose/) Calendar  | October 2018 | | | | | | | | --- | --- | --- | --- | --- | --- | --- | | **M** | **T** | **W** | **T** | **F** | **S** | **S** | | [« Jul](http://www.testautomationguru.com/2018/07/) | | |  |  | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | 15 | 16 | 17 | 18 | 19 | 20 | 21 | | 22 | 23 | 24 | 25 | 26 | 27 | 28 | | 29 | 30 | 31 |  | | | |  Archives  * [July 2018](http://www.testautomationguru.com/2018/07/) * [June 2018](http://www.testautomationguru.com/2018/06/) * [May 2018](http://www.testautomationguru.com/2018/05/) * [April 2018](http://www.testautomationguru.com/2018/04/) * [March 2018](http://www.testautomationguru.com/2018/03/) * [February 2018](http://www.testautomationguru.com/2018/02/) * [December 2017](http://www.testautomationguru.com/2017/12/) * [November 2017](http://www.testautomationguru.com/2017/11/) * [October 2017](http://www.testautomationguru.com/2017/10/) * [September 2017](http://www.testautomationguru.com/2017/09/) * [August 2017](http://www.testautomationguru.com/2017/08/) * [July 2017](http://www.testautomationguru.com/2017/07/) * [June 2017](http://www.testautomationguru.com/2017/06/) * [May 2017](http://www.testautomationguru.com/2017/05/) * [April 2017](http://www.testautomationguru.com/2017/04/) * [March 2017](http://www.testautomationguru.com/2017/03/) * [February 2017](http://www.testautomationguru.com/2017/02/) * [January 2017](http://www.testautomationguru.com/2017/01/) * [December 2016](http://www.testautomationguru.com/2016/12/) * [November 2016](http://www.testautomationguru.com/2016/11/) * [October 2016](http://www.testautomationguru.com/2016/10/) * [September 2016](http://www.testautomationguru.com/2016/09/) * [August 2016](http://www.testautomationguru.com/2016/08/) * [July 2016](http://www.testautomationguru.com/2016/07/) * [May 2016](http://www.testautomationguru.com/2016/05/) * [February 2016](http://www.testautomationguru.com/2016/02/) * [December 2015](http://www.testautomationguru.com/2015/12/) * [November 2015](http://www.testautomationguru.com/2015/11/) * [October 2015](http://www.testautomationguru.com/2015/10/) * [September 2015](http://www.testautomationguru.com/2015/09/) * [August 2015](http://www.testautomationguru.com/2015/08/) * [July 2015](http://www.testautomationguru.com/2015/07/) * [June 2015](http://www.testautomationguru.com/2015/06/) * [May 2015](http://www.testautomationguru.com/2015/05/) * [April 2015](http://www.testautomationguru.com/2015/04/) * [March 2015](http://www.testautomationguru.com/2015/03/)  Categories  * [Arquillian](http://www.testautomationguru.com/category/arquillian/) * [Articles](http://www.testautomationguru.com/category/uncategorized/) * [AWS / Cloud](http://www.testautomationguru.com/category/aws-cloud/) * [Best Practices](http://www.testautomationguru.com/category/best-practices/) * [CI / CD / DevOps](http://www.testautomationguru.com/category/ci-cd/) * [Design Pattern](http://www.testautomationguru.com/category/design-pattern/) * [Distributed Load Test](http://www.testautomationguru.com/category/distributed-load-test/) * [Docker](http://www.testautomationguru.com/category/docker/) * [ElasticSearch](http://www.testautomationguru.com/category/elasticsearch/) * [EMail Validation](http://www.testautomationguru.com/category/email-validation/) * [Extend JMeter](http://www.testautomationguru.com/category/extend-jmeter/) * [Extend WebDriver](http://www.testautomationguru.com/category/extend-webdriver/) * [Factory Pattern](http://www.testautomationguru.com/category/factory-pattern/) * [FileBeat](http://www.testautomationguru.com/category/filebeat/) * [Framework](http://www.testautomationguru.com/category/framework/) * [Grafana](http://www.testautomationguru.com/category/grafana/) * [Guice](http://www.testautomationguru.com/category/guice/) * [InfluxDB](http://www.testautomationguru.com/category/influxdb/) * [Jenkins](http://www.testautomationguru.com/category/jenkins/) * [JMeter](http://www.testautomationguru.com/category/jmeter/) * [Kibana](http://www.testautomationguru.com/category/kibana/) * [Little's Law](http://www.testautomationguru.com/category/littles-law/) * [Maven](http://www.testautomationguru.com/category/maven/) * [microservice](http://www.testautomationguru.com/category/microservice/) * [Monitoring](http://www.testautomationguru.com/category/monitoring/) * [Multi Factor Authentication](http://www.testautomationguru.com/category/multi-factor-authentication/) * [Ocular](http://www.testautomationguru.com/category/ocular/) * [Page Object Design](http://www.testautomationguru.com/category/page-object-design/) * [Puppeteer](http://www.testautomationguru.com/category/puppeteer/) * [QTP](http://www.testautomationguru.com/category/qtp/) * [Report](http://www.testautomationguru.com/category/report/) * [Selenium](http://www.testautomationguru.com/category/webdriver/) * [Selenium Grid](http://www.testautomationguru.com/category/selenium-grid/) * [Slack](http://www.testautomationguru.com/category/slack/) * [SMS](http://www.testautomationguru.com/category/sms/) * [Strategy Pattern](http://www.testautomationguru.com/category/strategy-pattern/) * [TestNG](http://www.testautomationguru.com/category/testng/) * [Utility](http://www.testautomationguru.com/category/utility/) * [Web Scraping](http://www.testautomationguru.com/category/web-scraping/) * [Workload Model](http://www.testautomationguru.com/category/workload-model/)   1 [2](http://www.testautomationguru.com/category/ci-cd/page/2/) [3](http://www.testautomationguru.com/category/ci-cd/page/3/) … [5](http://www.testautomationguru.com/category/ci-cd/page/5/) [»](http://www.testautomationguru.com/category/ci-cd/page/2/)  Category: CI / CD / DevOps  docker-container-test-header [Selenium WebDriver – How To Run Automated Tests Inside A Docker Container – Part 1](http://www.testautomationguru.com/selenium-webdriver-how-to-run-automated-tests-inside-a-docker-container/) August 21, 2017 [37 comments](http://www.testautomationguru.com/selenium-webdriver-how-to-run-automated-tests-inside-a-docker-container/#comments) Article  Overview: Testautomationguru already has few docker and selenium related articles which talks about setting up the dockerized selenium grid. Setting up Dockerized Selenium grid. Managing Dockerized Selenium Grid using Arquillian cube. Setting up Dockerized Selenium grid in AWS / Cloud using RancherOS Even if we have a selenium grid, we still need a host to run our tests – ie.. a  [Read More](http://www.testautomationguru.com/selenium-webdriver-how-to-run-automated-tests-inside-a-docker-container/) [Selenium WebDriver – How To Set Up Dockerized Selenium Grid in AWS / Cloud](http://www.testautomationguru.com/selenium-webdriver-how-to-manage-docker-grid-using-rancheros/) August 14, 2017 [1 comment](http://www.testautomationguru.com/selenium-webdriver-how-to-manage-docker-grid-using-rancheros/#comments) Article  Overview: We already have seen setting up JMeter Distributed Infrastructure using RancherOS.  We will see how to manage dockerized selenium grid using RancherOS. Rancher helps us to set up the grid in the local machine / AWS / any cloud. I would suggest you to read the above article on setting up the Rancher UI  [Read More](http://www.testautomationguru.com/selenium-webdriver-how-to-manage-docker-grid-using-rancheros/) [JMeter – How To Add Grafana Real Time Results In Jenkins Build Description](http://www.testautomationguru.com/jmeter-how-to-add-grafana-real-time-results-in-jenkins-build-description/) July 24, 2017 [8 comments](http://www.testautomationguru.com/jmeter-how-to-add-grafana-real-time-results-in-jenkins-build-description/#comments) Article  Overview: Testautomationguru already has released few detailed articles on creating real time results during Performance Testing. If you have not read them before, I would suggest you to check them out first. JMeter Real Time Results – Basic Setup JMeter Real Time Results – Advanced Setup for multiple projects JMeter – Server Performance Monitoring JMeter  [Read More](http://www.testautomationguru.com/jmeter-how-to-add-grafana-real-time-results-in-jenkins-build-description/)  logo_zalenium_wide [Selenium WebDriver – Disposable Selenium Grid Infrastructure Setup using Zalenium](http://www.testautomationguru.com/selenium-webdriver-disposable-selenium-grid-infrastructure-setup-using-zalenium/) May 29, 2017 [No comments](http://www.testautomationguru.com/selenium-webdriver-disposable-selenium-grid-infrastructure-setup-using-zalenium/#respond) Article  Overview: We already have seen the challenges related to setting up the Selenium Grid infrastructure and how docker helps us in setting up a flexible/disposable/highly scalable selenium grid within few seconds in these articles below. Docker – Selenium Grid Setup Arquillian Cube – Managing Dockerized Selenium Grid In this article, We will see how Zalenium  [Read More](http://www.testautomationguru.com/selenium-webdriver-disposable-selenium-grid-infrastructure-setup-using-zalenium/)  cube-sel-grid [Selenium WebDriver – Managing Selenium Grid Infrastructure using Arquillian Cube](http://www.testautomationguru.com/selenium-webdriver-managing-selenium-grid-infrastructure-using-arquillian-cube/) April 24, 2017 [10 comments](http://www.testautomationguru.com/selenium-webdriver-managing-selenium-grid-infrastructure-using-arquillian-cube/#comments) Article  In the previous article, we saw how easily we could set up the selenium-grid infrastructure using docker. By using docker-compose file, we can setup the containers for the selenium grid. Then we can start our automated functional tests using the grid. Once the execution is done, we can issue a simple command to bring the entire selenium  [Read More](http://www.testautomationguru.com/selenium-webdriver-managing-selenium-grid-infrastructure-using-arquillian-cube/)  grid001 [Selenium WebDriver – How To Create A Disposable Selenium Grid Infrastructure using Docker](http://www.testautomationguru.com/selenium-grid-setup-using-docker/) April 17, 2017 [6 comments](http://www.testautomationguru.com/selenium-grid-setup-using-docker/#comments) Article  Selenium Grid – Overview: Selenium Grid is used to run our tests on different OS/browsers in parallel. It basically uses master-slaves (or hub-nodes) concept – where there is one master/hub and there are few slaves/nodes registered to the master/hub. When we send our tests to the master/hub for execution, based on the browser/OS requirements of  [Read More](http://www.testautomationguru.com/selenium-grid-setup-using-docker/) [JMeter – Installing Plugins Manager & Other Plugins through Command-line](http://www.testautomationguru.com/jmeter-installing-plugins-manager-other-plugins-through-command-line/) February 27, 2017 [No comments](http://www.testautomationguru.com/jmeter-installing-plugins-manager-other-plugins-through-command-line/#respond) Article  In this short article, we will see how we could install the required plugins for JMeter 3.1 or above using Command-line / Ant. Goal: To install the required plugins for the JMeter test using Ant. Ant Target: Include below ant targets in your current project. [I assumed ‘jmeter.home’ property is set & pointing to JMeter  [Read More](http://www.testautomationguru.com/jmeter-installing-plugins-manager-other-plugins-through-command-line/)  slack-header [JMeter – How To Share Performance Test Results in Slack](http://www.testautomationguru.com/jmeter-sharing-performance-test-results-in-slack/) February 20, 2017 [3 comments](http://www.testautomationguru.com/jmeter-sharing-performance-test-results-in-slack/#comments) Article  Overview: Test automation is not just automating the application. I would say even sharing the test results programmatically with the team is part of Test automation. So that , team does not depend on any individual to get the results. Team can also take further action based on the test results without any delay. In  [Read More](http://www.testautomationguru.com/jmeter-sharing-performance-test-results-in-slack/)  elk-header [JMeter – Centralized Logging Solution in Distributed Testing using ElasticSearch + Beats + Kibana](http://www.testautomationguru.com/jmeter-centralized-logging-solution-in-distributed-testing-using-elasticsearch-beats-kibana/) February 13, 2017 [8 comments](http://www.testautomationguru.com/jmeter-centralized-logging-solution-in-distributed-testing-using-elasticsearch-beats-kibana/#comments) Article  I would like to show you the Centralized Logging Solution Architecture design for JMeter distributed performance testing in this article. Distributed Testing Challenges: In JMeter distributed testing we might face below challenges. TestAutomationGuru has already given the solutions for these challenges using Open Source tools/technologies. JMeter & other dependencies setup JMeter – Distributed Load Testing using Docker  [Read More](http://www.testautomationguru.com/jmeter-centralized-logging-solution-in-distributed-testing-using-elasticsearch-beats-kibana/)  pipe-006 [Best Practices – JMeter – Adding Performance Testing in CI / CD Pipeline](http://www.testautomationguru.com/best-practices-jmeter-performance-testing-in-continuous-delivery-pipeline/) January 30, 2017 [2 comments](http://www.testautomationguru.com/best-practices-jmeter-performance-testing-in-continuous-delivery-pipeline/#comments) Article  We already have seen Continuous Performance Testing process as part of these articles. JMeter – ANT – Jenkins Integration – Part 1 JMeter – ANT – Jenkins Integration – Part 2 JMeter – Maven – Jenkins  Integration JMeter – Gradle – Jenkins – TBD In this article, I would like to show how I have set [Best Practices – Building Robust Test Automation Framework](http://www.testautomationguru.com/best-practices-building-robust-test-automation-framework/) January 16, 2017 [7 comments](http://www.testautomationguru.com/best-practices-building-robust-test-automation-framework/#comments) Article  Test Automation – A Brief History: I still remember – It was sometime in 2004. I was thrilled when I first saw QTP (now it is UFT) playing the recorded script – launching a browser, entering test data and submitting the page etc. QTP was dominating the test automation world at that time and It  [Read More](http://www.testautomationguru.com/best-practices-building-robust-test-automation-framework/)  rancher-creates-hosts [JMeter – Distributed Load Testing using Docker + RancherOS in Cloud](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker-rancheros-in-cloud/) December 19, 2016 [No comments](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker-rancheros-in-cloud/#respond) Article  Setting up the JMeter distributed test infrastructure for the performance testing is not very easy! We already have seen that Docker can help us here in setting up the infrastructure. If you have not read the articles of TestAutomationGuru, I would suggest you to check these. Distributed Load Testing using Docker Distributed Load Testing using  [Read More](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker-rancheros-in-cloud/) [JMeter – Real Time Results – InfluxDB & Grafana – Part 2 – Adding Custom Fields](http://www.testautomationguru.com/jmeter-real-time-results-influxdb-grafana-part-2-adding-custom-fields/) December 12, 2016 [4 comments](http://www.testautomationguru.com/jmeter-real-time-results-influxdb-grafana-part-2-adding-custom-fields/#comments) Article  I already have been using InfluxDB + Grafana for real time results of my JMeter test. You can find more details on the basic setup here.   In this article, Lets see how we can add some custom fields into the InfluxDB measurements for faster search which we might need in future. Problem Statement: In  [Read More](http://www.testautomationguru.com/jmeter-real-time-results-influxdb-grafana-part-2-adding-custom-fields/)  1 [JMX Monitoring using Collectd + InfluxDB + Grafana](http://www.testautomationguru.com/jmx-monitoring-using-collectd-influxdb-grafana/) November 28, 2016 [9 comments](http://www.testautomationguru.com/jmx-monitoring-using-collectd-influxdb-grafana/#comments) Article  We have already seen monitoring CPU / Memory utilization using Collectd (this article). But It does not give all the information to identify the bottleneck of a Performance issue. In this article, we will be using Collectd Java plugin to monitor and manage Java Virtual Machine (JVM) using its JMX technology. Goal: To monitor and manage the  [Read More](http://www.testautomationguru.com/jmx-monitoring-using-collectd-influxdb-grafana/) [JMeter – Continuous Performance Testing – JMeter + Maven](http://www.testautomationguru.com/jmeter-continuous-performance-testing-jmeter-maven/) November 21, 2016 [8 comments](http://www.testautomationguru.com/jmeter-continuous-performance-testing-jmeter-maven/#comments) Article  I am going to shamelessly copy some content from the article on JMeter + Ant. Goal: To create a Continuous Delivery Pipeline which includes Performance Testing process to detect any performance related issues as early as possible. Usually the full scale Performance Test will be done in the Staging/Pre-Production environment which could be identical to your Production environment. Code  [Read More](http://www.testautomationguru.com/jmeter-continuous-performance-testing-jmeter-maven/)  select-host [JMeter – Server Performance Monitoring with Collectd + InfluxDB + Grafana](http://www.testautomationguru.com/jmeter-server-performance-monitoring-with-collectd-influxdb-grafana/) November 14, 2016 [4 comments](http://www.testautomationguru.com/jmeter-server-performance-monitoring-with-collectd-influxdb-grafana/#comments) Article  We already have seen in this article on monitoring server performance using JMeter plugin.  Even though the JMeter Server agent is useful to collect the server performance metrics, we need to use JMeter’s metrics collector to listen to the server agent to collect the data which was a little bit annoying. I was looking for some  [Read More](http://www.testautomationguru.com/jmeter-server-performance-monitoring-with-collectd-influxdb-grafana/) [QTP/UFT – Sending out Email with Test Results using Jenkins](http://www.testautomationguru.com/qtpuft-sending-out-email-with-test-results-using-jenkins/) November 7, 2016 [No comments](http://www.testautomationguru.com/qtpuft-sending-out-email-with-test-results-using-jenkins/#respond) Article  I had already explained in this article that we do a smoke test after every build to confirm if the critical functionalities of the application is working fine or if the application is testable. We do that by selecting few important test cases from the automated regression suite & execute that as part of every  [Read More](http://www.testautomationguru.com/qtpuft-sending-out-email-with-test-results-using-jenkins/) [Selenium WebDriver – Running the automated test in cloud](http://www.testautomationguru.com/selenium-webdriver-running-the-automated-test-in-cloud/) October 24, 2016 [No comments](http://www.testautomationguru.com/selenium-webdriver-running-the-automated-test-in-cloud/#respond) Article  We have been using Selenium WebDriver, QTP, JMeter etc in our organization for the automated functional and performance testing. I setup the complete test automation infrastructure and used to do the maintenance. Initially it was fun and later managing everything (Selenium, QTP, JMeter,Influx, Grafana etc) started eating up most of my time. I had to  [Read More](http://www.testautomationguru.com/selenium-webdriver-running-the-automated-test-in-cloud/)  jm-redis-06 [JMeter – How To Share Data In Distributed Load Testing](http://www.testautomationguru.com/jmeter-make-data-sharing-easy-in-distributed-mode-using-redis/) October 17, 2016 [4 comments](http://www.testautomationguru.com/jmeter-make-data-sharing-easy-in-distributed-mode-using-redis/#comments) Article  In this article, I would like to show how we can share data among all the JMeter servers in distributed mode. Problem Statement: If you have been running JMeter in distributed mode, you might already know that setting up all the JMeter servers with all the dependency is a pain. We already see that docker greatly simplifies  [Read More](http://www.testautomationguru.com/jmeter-make-data-sharing-easy-in-distributed-mode-using-redis/) [JMeter – Scaling out load generators using Docker Compose in distributed load testing](http://www.testautomationguru.com/jmeter-scaling-out-load-servers-using-docker-compose-in-distributed-load-testing/) September 26, 2016 [8 comments](http://www.testautomationguru.com/jmeter-scaling-out-load-servers-using-docker-compose-in-distributed-load-testing/#comments) Article  In this post, I would like to show how to create multiple instances of JMeter servers/slaves on demand using docker compose. I assume you have some idea on using docker in JMeter distributed load testing. If not, please read this post first. Docker Compose: As part of our application design, we might have a webserver, few app servers [QTP/UFT – Jenkins & GitHub / SVN Integration](http://www.testautomationguru.com/qtpuft-jenkins-github-svn-integration/) August 26, 2016 [10 comments](http://www.testautomationguru.com/qtpuft-jenkins-github-svn-integration/#comments) Article  I get many comments from the readers to include a post on Jenkins-QTP-Source control integration & issues they are facing while trying to implement Jenkins-QTP console output which this post talks about. In this post, I would like to show how we can configure Jenkins to fetch the automated test scripts from the source control  [Read More](http://www.testautomationguru.com/qtpuft-jenkins-github-svn-integration/)  aws-docker-container-01 [JMeter – Distributed Load Testing using Docker in AWS](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker-in-aws/) August 15, 2016 [25 comments](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker-in-aws/#comments) Article  In the Previous post, We had learnt how to use docker in creating multiple containers running jmeter-server for distributed load testing. But we had created all the containers in the same host. Even if we can not use the single-host containers for performance testing with huge load, before pushing your performance test script related changes to  [Read More](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker-in-aws/)  jm-master-slave-host-docker [JMeter – Distributed Load Testing using Docker](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker/) August 1, 2016 [17 comments](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker/#comments) Article  Overview: A single JMeter instance might not be able to generate enough load to stress test your application. As this site shows, one JMeter instance will be able to control many other remote JMeter instances and generate larger load on your application. JMeter uses Java RMI [Remote Method Invocation] to interact with objects in a  [Read More](http://www.testautomationguru.com/jmeter-distributed-load-testing-using-docker/)  ufts-09 [QTP/UFT – How to Pass Test Parameters from Jenkins](http://www.testautomationguru.com/parameterize-qtpuft-script-to-run-on-any-test-environment-using-jenkins/) February 26, 2016 [8 comments](http://www.testautomationguru.com/parameterize-qtpuft-script-to-run-on-any-test-environment-using-jenkins/#comments) Article  Aim: To run the QTP/UFT script on any given test environment using Jenkins by passing the environment as a parameter to the QTP/UFT test.   Please read this post first to get a high level idea of basic QTP/UFT + Jenkins integration.   Creating Simple Test Script with Test Parameters: Create a simple QTP/UFT test script  [Read More](http://www.testautomationguru.com/parameterize-qtpuft-script-to-run-on-any-test-environment-using-jenkins/)  continuous-performance-test [JMeter – Continuous Performance Testing – JMeter + ANT + Jenkins Integration – Part 2](http://www.testautomationguru.com/jmeter-continuous-performance-testing-part2/) February 14, 2016 [26 comments](http://www.testautomationguru.com/jmeter-continuous-performance-testing-part2/#comments) Article  Goal: To create a Continuous Delivery Pipeline which includes Performance Testing process to detect any performance related issues as early as possible. Usually the full scale Performance Test will be done in the Staging/Pre-Production environment which could be identical to your Production environment. Code push to Staging happens after thorough QA functional/regression verification is done. So even if  [Read More](http://www.testautomationguru.com/jmeter-continuous-performance-testing-part2/)  new-dashboard-chart [JMeter – Continuous Performance Testing – JMeter + ANT + Jenkins Integration – Part 1](http://www.testautomationguru.com/jmeter-continuous-performance-testing-part1/) February 14, 2016 [37 comments](http://www.testautomationguru.com/jmeter-continuous-performance-testing-part1/#comments) Article  Goal: To create a Continuous Delivery Pipeline which includes Performance Testing process to detect any performance related issues as early as possible.   Usually the full scale Performance Test will be done in the Staging/Pre-Production environment which could be identical to your Production environment. Code push to Staging happens after thorough QA functional/regression verification is done. So even  [Read More](http://www.testautomationguru.com/jmeter-continuous-performance-testing-part1/)  jira-design [JIRA – Automated status report](http://www.testautomationguru.com/jira-automated-status-report/) December 12, 2015 [2 comments](http://www.testautomationguru.com/jira-automated-status-report/#comments) Article  In this post, I would like to show how I have implemented automated status reporting from JIRA. In my organization, I help with automation testing for multiple projects. One of the projects, they use JIRA for defect tracking. I was approached to implement something similar to this (which i had already done for HP ALM)  [Read More](http://www.testautomationguru.com/jira-automated-status-report/)  qdashbaord [Best Practices – Continuous Regression Testing](http://www.testautomationguru.com/continuous-regression-testing-best-practises/) November 7, 2015 [11 comments](http://www.testautomationguru.com/continuous-regression-testing-best-practises/#comments) Article  In this post, I would like to show how I have implemented automated continuous regression testing process in my project. It is based on the Hybrid framework, I had implemented. I would request you to read the post on Hybrid Framework first if you have not.   Problem Statement: We follow agile methodology & we have  [Read More](http://www.testautomationguru.com/continuous-regression-testing-best-practises/)  my-grafana-dashboard [JMeter – Real Time Results – InfluxDB & Grafana – Part 1 – Basic Setup](http://www.testautomationguru.com/jmeter-real-time-results-influxdb-grafana/) October 31, 2015 [269 comments](http://www.testautomationguru.com/jmeter-real-time-results-influxdb-grafana/#comments) Article  Overview: In this article, I will explain how we could get real time performance test results using JMeter + InfluxDB + Grafana. Please do note that this topic is too huge to cover everything in one article.  So, I have tried to provide links to other articles of TestAutomationGuru which could be related to this  [Read More](http://www.testautomationguru.com/jmeter-real-time-results-influxdb-grafana/)  asm002 [Best Practices – Automated Smoke Test](http://www.testautomationguru.com/automated-smoke-test-best-practises/) August 29, 2015 [No comments](http://www.testautomationguru.com/automated-smoke-test-best-practises/#respond) Article  In this post, I would like to show how I have implemented automated smoke test in my project. It is based on the Hybrid framework I had implemented. I would request you to read the post on Hybrid Framework first if you have not.   Problem Statement: We follow agile methodology & we have a [JMeter – Server Performance Metrics Collector](http://www.testautomationguru.com/jmeter-server-performance-metrics-collector/) May 29, 2015 [17 comments](http://www.testautomationguru.com/jmeter-server-performance-metrics-collector/#comments) Article  JMeter has many listeners which provide useful information like Number of the requests processed Average response time Throughput 90% line Error %   etc But….What about the server performance metrics? like CPU / Memory utilization. JMeter is not only generating the load on the server but also comes with an agent which can run on the  [Read More](http://www.testautomationguru.com/jmeter-server-performance-metrics-collector/) [HP ALM / QC – Automated status report email](http://www.testautomationguru.com/hp-alm-qc-automated-status-report-email/) May 17, 2015 [23 comments](http://www.testautomationguru.com/hp-alm-qc-automated-status-report-email/#comments) Article  In my project, We follow agile methodology for our software development & we have release once in every 4 weeks. With continuous development, build & testing, we used to spend a lot of time in sending out a detailed status email on defects for each project to higher management. In this article, I would like  [Read More](http://www.testautomationguru.com/hp-alm-qc-automated-status-report-email/) [QTP/UFT – Display Test execution progress in Jenkins Console](http://www.testautomationguru.com/qtpuft-jenkins-console-output-to-show-test-execution-results/) May 6, 2015 [16 comments](http://www.testautomationguru.com/qtpuft-jenkins-console-output-to-show-test-execution-results/#comments) Article  We had seen the QTP/UFT integration & triggering QTP test scripts remotely using Jenkins in this article. (If you have not read that, I recommend you to read the article first). In this article we will see how to display the QTP/UFT results in the Jenkins console. I have more than 5000 automated test scripts  [Read More](http://www.testautomationguru.com/qtpuft-jenkins-console-output-to-show-test-execution-results/) [JMeter – How To Run Multiple Thread Groups in Multiple Test Environments](http://www.testautomationguru.com/jmeter-manage-test-plan/) April 19, 2015 [23 comments](http://www.testautomationguru.com/jmeter-manage-test-plan/#comments) Article  Overview:  As part of performance testing,  I had to come up with performance test scripts for various use cases / business workflows for our application. When I design my performance test scripts, I will ensure that I have reusable test scripts as mentioned in this article. JMeter – How To Create Reusable & Modular Test  [Read More](http://www.testautomationguru.com/jmeter-manage-test-plan/)  uft003 [QTP/UFT – Executing automated test scripts using Jenkins](http://www.testautomationguru.com/executing-qtpuft-scripts-using-jenkins/) April 7, 2015 [37 comments](http://www.testautomationguru.com/executing-qtpuft-scripts-using-jenkins/#comments) Article  This article outlines the integration of HP’s QTP (now it is called UFT) & Jenkins. This article provides the details in a very high level. I might not be able to cover all the benefits we could get, by integrating UFT with Jenkins, in this article. So, I have created separate posts in this site to |