**Executing automated UFT\ALM tests from Jenkins**

[March 24, 2015](http://sumeetkushwah.com/2015/03/24/implementing-ci-using-jenkins-and-uft/) · by [sumeet Singh kushwah](http://sumeetkushwah.com/author/sumeetkushwah/) · in [ALM/QC](http://sumeetkushwah.com/category/almqc/), [Continuous Integration](http://sumeetkushwah.com/category/continuous-integration/), [Jenkins](http://sumeetkushwah.com/category/jenkins/), [QuickTest Pro](http://sumeetkushwah.com/category/quicktest-pro/), [Unified Functional Testing](http://sumeetkushwah.com/category/unified-functional-testing/). ·

Hello Friends,

In this post we will discuss about integrating Jenkins CI tool with HP UFT.

**Introduction**

Jenkins is a CI tool which basically monitors external job executions and it’s mainly used by developers for building and deployment of code. It provides several functions like scheduling of tasks called jobs in several remote machines called as slaves in terms of Jenkins vocabulary. In this post we are going to learn how to setup Jenkins from scratch for executing UFT automated test cases.

First, we need to understand, what is the need for running the automated tests with CI tools? It’s not just applicable for Jenkins, its applicable for any other CI tools or automation tools available in the market. Most of the people are going to tell you about agile and Smoke testing, those are correct and we will go back to this topic in other posts. First we will look into more common issues which teams will face.

I was very happy by learning new languages and implementing new things for my project, and then one day we did some analysis and it seemed that we were spending most of our time in executing older regression test suites and we have only 20-30 % of our time left for development of new test cases, and it’s the problem which was growing day by day more severe.

So, the only solution for this problem is to assign the execution of the scripts to the actual owners. It seemed ideal, but in real world that’s not as easy as we think, everybody has their own tasks to be completed, plus they didn’t had the knowledge for using UFT and you will be pushed back to ground zero, from where you started.

On the other side, tests we had were automated test cases, and hence by definition they are supposed to be run automatically. But due to the manual interventions required due to the nature of scripts or application, it was close to impossible to execute the most of the scripts on a headless remote machine.

To resolve these issues we tried HP ALM’s Lab management tool, but I realized very soon that it can only execute the test cases so if you have to execute a bunch of scripts before or after execution of the scripts, you cannot. Also there is no way to approve the results and a lot of time issues with the remote machine cause the test to fail.

There is another way of doing it using Automation Object model, but I really don’t want to take the headache of maintaining another piece of code which might change between versions of UFT.

I tried Jenkins and I am still using it, basically it does everything, let’s see how…

**Installation of Jenkins Server**

If you don’t have Jenkins server, then follow [this](https://wiki.jenkins-ci.org/display/JENKINS/Installing+Jenkins) guide for the installation of the server. If you have installed Jenkins server using windows setup, you can access Jenkins server using the following URL

[http://ServerName:8080](http://servername:8080/)

Check your Jenkins workspace path and update if required.

Create slave machine for the execution of the UFT scripts(Machine where UFT is installed), and install the following plug-ins

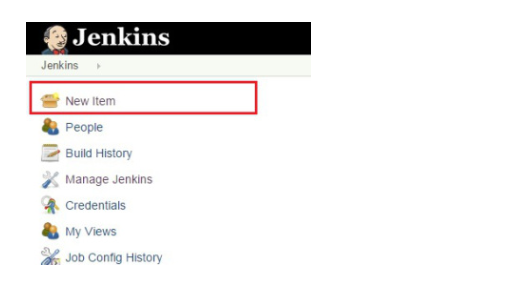
**List of required plugins for the setup**

* Copy Artifact Plugin
* Dashboard View Plugin
* Discard Old Build Plugin
* Email Extension Plugin
* Extra Columns Plugin
* Flexible Publish Plugin
* HP Application Automation Tools Plugin
* Test Result Analyzer Plugin
* Time Stamper Plugin
* Workspace Cleanup Plugin

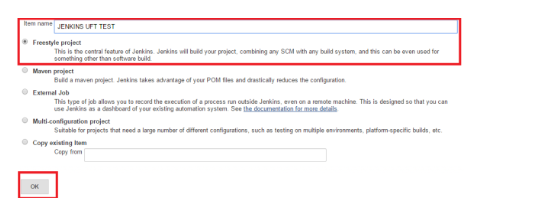
Most of them are self explanatory, but if you need any other details then, Google with the exact name of the plugin.

**Creating Jenkins job**

Once, you are able to open the Jenkins server, Click on “New Item”



Provide any Item name, select “freestyle project” and click on “OK” button



Once, you click on OK button, New Job configuration page will open. This is the main configuration page, where we will provide all of the configuration details about how the Job should execute.

Fill out the following information withing the job configuration page

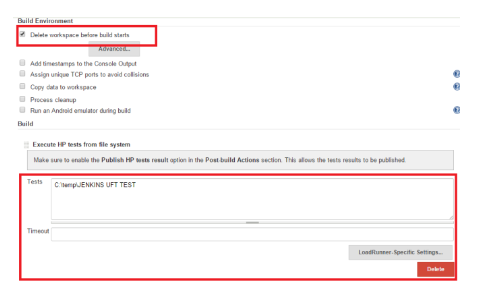
1) Description : Description about the job and the UFT test which is tied to this job.

2) Check on “Restrict where this project can be run” and provide the slave machine name with UFT installed. This is very important step, because otherwise Jenkins will choose a slave machine randomly, and might choose Jenkins master machine (where Jenkins is installed) for execution. This will cause the job to fail.

3) Select appropriate build triggers, if you are using any source code control for storing UFT tests (Except ALM) e.g. GIT, SVN, TFS.

4) Under Build environment select “delete workspace before build starts”. This will help us in cleaning up the workspace and have a fresh start for each execution.

5) Click on Add build step button under build and select “Execute HP Tests from file system”. This will allow you to execute the tests from file system e.g. “C:\” or network drives.



6) Provide UFT tests or Solution path in the “Tests” text box. If you provide UFT’s solution file path then all tests under solution will be executed one after another. Leave Time out seconds blank.

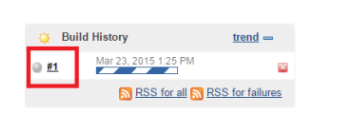
7) Click on “Add post build action” under post build actions, and select “Publish HP test results”. Select “Always Archieve HP test Reports”. This step will generate and archive Junit results for the execution on the jenkins server, which can be used for analysis. we will discuss about this in detail later.

8) If you have configured the email server then Add another post build step and “Editable email notification”. This option will send automated emails after the execution is over. We can attach any files in the email or we can send any files as the part of the email body.

After filling out the above information, Click on Save button and start the job by clicking on “Build now” button within job details page.



Once the execution is started, click on Build number, under build history, to check the current execution details



While the test is executing, you can click on Console output, to check the current execution status.



Once the execution is completed, you can see the test results on the Build page, under test results



This completes the basic configuration of the Jenkins Job.

**How it works ?**

When you execute a UFT test from Jenkins, HP automation tools plugin will copy the following files to the Jenkins Job workspace directory

**1)** **HpToolsLauncher.exe** – This is the file used for actual execution of the UFT tests, when you take a closer look into the console output of the jenkins build, you will see a line

"C:\Jenkins\workspace\JENKINS UFT TEST\HpToolsLauncher.exe" -paramfile props23032015132505096.txt

If you execute this line on the slave machine UFT test will execute.

**2)** **LRAnalysisLauncher.exe –**For load runner.

**3) propsXXXXX.txt –**This is the properties file for the HP Automation tools plugin. This will store different parameters required for the execution of UFT/Load tests.

**4) ResultsXXXXX.xml –**This is the Junit results generated by the HpToolsLauncher.exe after the execution is completed. When we choose to create a post build step and choose to “Publish HP run results”. This Junit file will be uploaded back to the Jenkins and produce the test results shown in step 12 above.

**General Issues faced during test execution**

There are several issues you may encounter during the execution of UFT tests from Jenkins

1) If scripts has any “MsgBox” statement or any “InputBox” statement, scripts will directly fail.

2) If the machine is unlocked, then there is a chance for complex applications to fail.

3) We have to make sure that machine is cleaned up before and after the execution of tests(Closing all browsers and any other types of files like excel sheets or word documents).

4) We have to make sure that UFT scripts has a proper error handling mechanism or UFT will throw an error message and Jenkins Job will fail as soon as Popup appears on the page.

5) If we have a proper framework for our scripts, then most likely we will be execution multiple tests within one UFT test. Because Jenkins HP Automation tool can only count UFT tests and there is no way to indicate no. of tests, if you execute 2 UFT tests having 20 tests each, Jenkins dashboard will only display 2 tests executed, not 40 tests executed.

6) If report a failure in any of the tests, you will see failure of Jenkins complete Job instead of a particular test case.

let’s see how to resolve each of these issues to create a perfect Jenkins job for executing automated UFT tests.

**1) Replace any statement which requires human intervention**

We must scan our scripts and replace any statements which require human intervention like MsgBox statements must be commented and should only be used during debugging. For any steps which uses Input boxes for accepting inputs, use test parameters and action parameters. For receiving information back, use reporter.reportevent instead of msgbox statements.

**2) Use Physical desktops, instead of virtual machines**

If we use virtual machines as Jenkins slave machines, then we will have to make sure that the machines are up and running all the time, because virtual machine can go blank without any prior warning, if the user disconnects them.

**3) Unlocking remote slave machine before executions**

To overcome this issues, if possible change the machine setting, so that machine never locks automatically. But this option is not available in most of the companies because the machines running UFT will most probably have admin rights and its not advisable to leave the machine with admin rights unlocked.

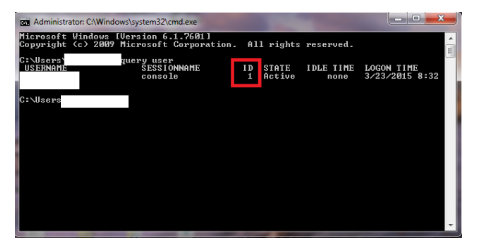
First test your scripts, if they are able to run in the locked machine. If not then, you can use the following commands to unlock the Physical desktop machine from another computer (In case you are at home or other location).

For Unlocking the Remote Desktop(Physical machine)

Run on the command prompt

Query User

This command will provide the the Session ID for your Login Session



Once you have the session id of your session execute the following command

Tscon <Session id from previous commapn> /DEST:Console

This command will unlock the desktop machine and you can execute your test normally.

**4) Include Machine Cleanup Framework in UFT**

Machine cleanup framework is explained [here](http://sumeetkushwah.com/2014/08/14/machine-cleanup-framework-for-uftqtp-2/). This framework will use the VBScript classes for executing predefined cleanup code. This is required because, if the previous execution of code leaves somethings open then, your subsequent executions might fail.

**5) Include proper error handling mechanism in your scripts**

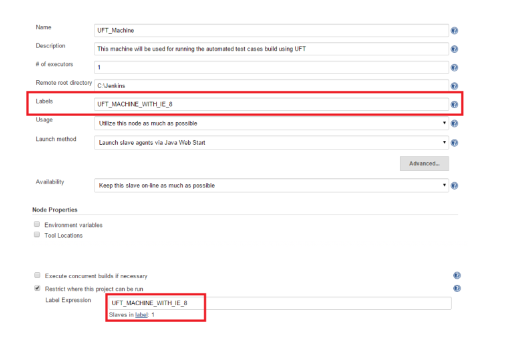
Recovery scenarios cannot handle errors properly, for running tests from Jenkins you will need a way to handle all kinds of error, including UFT’s general run error’s. Because, if UFT throws general run error, then your Jenkins execution will fail, while UFT will be waiting for someone to click on the error and close the test manually and this will  create issues with the subsequent test executions. Details description about how to implement this framework is explained [here](http://sumeetkushwah.com/2014/08/12/implementing-try-catch-functionality-in-qtpuft/).

**Executing tests in Parallel**

For execution multiple tests in parallel you can choose to do one of these two methods

1) Open the tests and update the Label expression under “Restrict where this project can be run”, with the slave machine name. Once you update the two different tests with different machine names, you can execute the tests in parallel on those two machine (provided you have proper license for executions).

2) Now, the previous method works, but that’s not the best way to execute parallel tests within Jenkins. To implement the second method you will have to figure out the machines with similar properties like “UFT MACHINE WITH IE 8”, so this is a specific machine having UFT installed and can be used for the apps which are only compatible with IE 8. Once you have all the machine characteristics identified you can then open the slave configurations for the machine and update these names in the Slave labels. Once this Logical grouping of the Machines is done than you can provide this logical name with “Restrict where this project can be run”, instead of machine names. Using this method, you wont have to actually remember about the machine names and go through the whole hard process to identifying which machine you should execute the test.



One more advantage of this method is if you have two machine with Label “UFT MACHINE WITH IE 8”, and when you execute the test, if the one of the machine is busy, then Jenkins will automatically Pickup the second machine and use it for execution.

**Building test queue(sequential test execution)**

Jenkins will automatically build the execution queue, once you select more number of jobs then the machines you have. These tests will be executed automatically when the machine will become free. To check this, Update the “Restrict where this project can be run” of three Jobs with the same slave name. Now, click on home page and Click on “Schedule a build” button for all three jobs, one after another and you will see the build queue, on the left side of the home page under “Build queue”.

**Executing tests from ALM**

For running tests from ALM, you have to make three changes to the current configuration explained above.

**1) Add ALM Server**

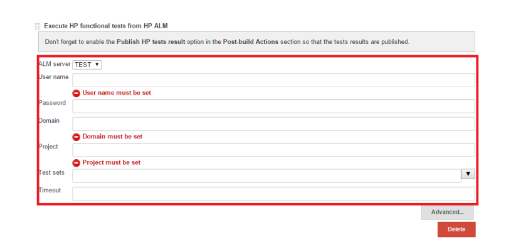
open Jenkins -> Manage Jenkins -> Configure System and find the sub section “Application Lifecycle Management”.

Click on “Add ALM Server” button. Provide the server name as Test or Prod or Dev and enter the server URL till qcbin. Click on save and apply.

You can add multiple ALM Servers.

**2) Use “Execute HP Functional test from HP ALM” instead of “Execute HP tests from file system”.**

Add the Build Step “Execute HP Functional test from file system”. Select ALM Server name from the “ALM Server” combobox. Provide Username, password, Domain, project and Test Set Path for the execution of the tests. Test set path is the actual physical path which you see in the ALM test lab tree structure starting with Root\



**3) Check the advanced setting,**

if you want to execute the tests on specific host defined in ALM.

**You will see the following changes in the execution process**

**Modified Console Output**

When you execute your tests from ALM Server, you will see one change in the Console output, you will start seeing all of the Reporter.reportevent statements on the Jenkins console log.

This feature can be used to check the current progress of the execution.

**Automatic Execution update in ALM**

Test execution status will be uploaded automatically to ALM Server.

**Additional helpful setting\upgrades**

**1) Instead of using “Publish HP Run results option”, Create and upload your our own Junit results**

When, one UFT test executes 100 test cases, HP Automation tools plugin will only return either one pass or one fail. To over come this create your own Junit results xml file at runtime after the UFT execution is completed. This will also serve as a checkpoint, if the UFT execution is completed successfully then only we should have a JUnit file generated.

Once you have this functionality implemented, you will start seeing awsome results on Jenkins and you will unlock the real power of Jenkins. JUnit results XML will look like this

|  |  |
| --- | --- |
| 1  2  3  4  5  6 | <testsuites>  <testsuite Name=“FirstAutomation” test=“2” failures=“0” time=““>  <testcase name=“test1” classname=“FirstAutomation.TestCases” time=“27.68359” status=“pass”>  <testcase name=“test2” classname=“FirstAutomation.TestCases” time=“13.33203” status=“pass”>  </testsuite>  </testsuites> |

When you publish this file after one UFT test execution you will see two passed test instead of one passed tests.



In this above example, i have executed several tests and 17 of them failed. All of the tests were under one UFT test

To publish the JUnit results, add the post build step “Publish Junit test result report”. Provide the JUnit file path and enter 1.0 in the Health report amplification factor.

**2) Upload test Artifacts to Jenkins**

Jenkins will allow to upload the artifacts back to the Jenkins server. We have to use the copy artifacts plugin to do this. Within UFT you can create a function and call it within the Machine cleanup Framework’s class initialization(to make sure it executes) to setup the export of UFT datatable and UFT run results to the Jenkins workspace like this

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15 | Public Function SetQTPParameters()  Dim App 'As Application  Set App = CreateObject(“QuickTest.Application”)  App.Options.Run.AutoExportReportConfig.AutoExportResults = True  App.Options.Run.AutoExportReportConfig.StepDetailsReport = True  App.Options.Run.AutoExportReportConfig.DataTableReport = True  App.Options.Run.AutoExportReportConfig.LogTrackingReport = False  App.Options.Run.AutoExportReportConfig.ScreenRecorderReport = False  App.Options.Run.AutoExportReportConfig.SystemMonitorReport = False  App.Options.Run.AutoExportReportConfig.ExportLocation = JenkinsWorkSpacePath  App.Options.Run.AutoExportReportConfig.UserDefinedXSL = ““  App.Options.Run.AutoExportReportConfig.StepDetailsReportType = “HTML”  App.Options.Run.AutoExportReportConfig.StepDetailsReportFormat = “Detailed”  App.Options.Run.AutoExportReportConfig.ExportForFailedRunsOnly = False  End Function |

After creating this function, on the Jenkins configuration, add a build step “Archive the artifacts”.  This is Upload the results back to the Jenkins server and will be visible for each execution. The default Archival path is Jenkins workspace, but we can also point it to the child folder inside jenkins workspace.

e.g. If Jenkins workspace path is “C:\Jenkins”(Create this in Slave Config -> Remote Root Directory) then the Job execution path will be “C:\Jenkins\JENKINS UFT TEST\”

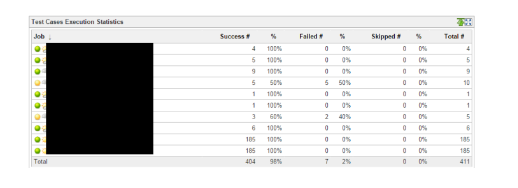
to archive the artifacts from the child folder within workspace e.g. “C:\Jenkins\JENKINS UFT TEST\ExecutionResults”

use “ExecutionResults/\*” in the files to archive textbox

In addition Upload any artifacts related to the test execution to Jenkins, if required.

**3) Use Dashboard Plugin to create execution dashboards**

Once, you have dashboard plugin installed in the Jenkins, create dashboard views and add test execution statistics Grid to it. This will pull the data from the Jobs latest JUnit files and publish the data on the Dashboard page Providing summary on the Dashboard home page.



Above is the snippet of the Test execution statistics Grid.

**4) Use Flexible publish to produce the results**

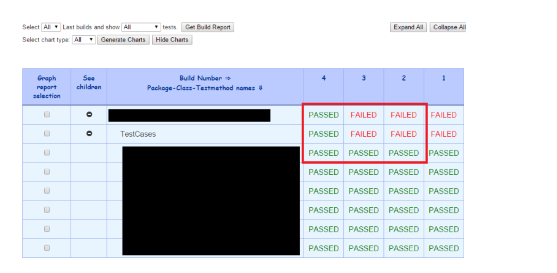
Use the flexible publish plugin to figure out things like, if the files are generated before actually passing the Jenkins job or failing the Jenkins Job. One example is check if the Junit results are generate before archiving them to Jenkins server. If the file is absent then Jenkins will throws an error and fail the job.

**5) Close and open HP Remote agent during each run session**

I have included a separate batch file for running the remote agent launcher during each run session and close it after the execution is over. This will make sure that all of the UFT related processes and connection are re-established during each run session.

**6) Use “test result analyzer” for result analysis**

You can use the test result analyzer for analyzing the results of two separate executions. To Open, Click on “Test Result Analyzer” on the job description page.



If, we have 100’s of tests, it might not be very easy to analyze the results between two executions, but if you have Custom JUnit reports generated, then you can use this feature for analyzing the results between any two executions

**7) Use Batch File to Kill UFT**

Create a batch file to kill UFT and add this to build step after the step for the execution of the UFT Test. This will make sure that UFT is not hanged in between and also if the Jenkins Job is stopped due to some reason you will have the machine ready for the next one.

Let me know, if you have any questions and i will try to resolve them.

Thanks

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Hi,  
We have a physical server acting as a slave that runs our UFT scripts via ALM. The issue is that is it not headless. Someone has to physically log into the server and stay logged in to keep it active in order for the scripts to execute. If someone does not physically log into the server, the scripts will fail automatically. If they log into the server but step away for more than 15 mins, the machine will lock and the scripts will fail. We don’t want to have someone to have to physically log into the server and keep the server active everytime the scripts are kicked off. Is there a solution to this issue?

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Hi Steve,

There are several options to resolve this issue,

1) Select the following UFT option

Go to Tools->Options->General->Run Sesssions  
Click on the third checkbox “Allow UFT to continue running GUI or BPT after disconnecting from an RDP computer”, provide the credentials and check the connection.

2) If you are running the scripts from ALM and using the Lab management, then during the installation choose the option to Unlock the machine if Locked, before starting the execution(I don’t remember it exactly) and provide the credentials for Unlocking the machine there.  
For using this option you need to be admin on the machine.

3) If above things does not work then you can write a simple VBS utility and leave it running on the machine, which will prevent the machine from locking.

4) If you are admin on the machine then you can change the system properties to never lock the machine.

Let me know, if this helps or if you need any other help.

Thanks,  
Sumeet Singh Kushwah

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Hi,  
I’m interested on the step regarding creating and uploading Junit results xml files. Is that done from the Jenkins side of things, or UFT? Is there a reference you could point me to on how that is done? If it makes a difference, I currently have Jenkins run ALM tests. Thanks!

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Hi Tyler,

It makes huge difference if you don’t have one to one mapping for the tests. My framework executes 20 or 30 manual tests, within one automated test. Now,when I execute this from ALM, ALM reports back that one test case is passed, because its only one UFT test which is passed.

I have implemented JUnit results because, i wanted to check how many tests are executed passed/failed for a particular release. This tracking was done before using the excel sheets to figure out one UFT test corresponds to how many Manual ALM test.

**For Implementation**

We have to create the JUnit results at the end if the execution in UFT, Function looks something like this

Link to [Image](https://sumeetsinghkushwah.files.wordpress.com/2015/06/junit.png)

Within Jenkins, I have the Post Build Step for flexible publishing of the results using “Flexible Publish Plugin”, where I am checking for the Junitresults.XML file and if the file exists, then i am using Archive the artifacts post build step for publishing the JUnit results.

Also, we will have to change the build status from fail to Warning, because if the results are fail than dashboard will not pickup the results.

Complete Implementation will look like this

Link to Image : [Jenkins JUnit Configuration](https://sumeetsinghkushwah.files.wordpress.com/2015/06/junit-jenkins.png)

Let me know, if you need any other details.

Thanks,  
Sumeet Singh Kushwah

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1. http://2.gravatar.com/avatar/e678b561cedcada7b92ea30c5ff079c6?s=40&d=identicon&r=G*Sheeran* [June 24, 2015 at 7:02 am](http://sumeetkushwah.com/2015/03/24/implementing-ci-using-jenkins-and-uft/comment-page-1/#comment-103) · · [Reply](http://sumeetkushwah.com/2015/03/24/implementing-ci-using-jenkins-and-uft/?replytocom=103#respond) →

Hi there,  
What if I want to launch 1 single test from a specific testSet ? Is i it possible or do we have to stick with the testSet concept ?

Thanks

Sheeran

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Hi Sheeran,

You should be able to provide the test case name after the test set for executing the specific tests.

Root\TestSet\testcasetobeexecuted

If you face any issues, then let me know, I will send you some examples.

Thanks,  
Sumeet Singh Kushwah

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* + - http://2.gravatar.com/avatar/e678b561cedcada7b92ea30c5ff079c6?s=40&d=identicon&r=G*Sheeran* [June 25, 2015 at 2:53 am](http://sumeetkushwah.com/2015/03/24/implementing-ci-using-jenkins-and-uft/comment-page-1/#comment-107) · ·

Hello Sumeet,  
Thanks for your quick answer,  
I tried it but it is specified that the testSet and the test are supposed to be two separate parameters in the paramfile .  
———————————————————————————-  
TestSet=/  
Test=//  
———————————————————————————-  
Should I put the TestCase Name on the TestSet parameter or Test Parameter ?  
I tried both in the paramfile  
1- TestSet parameter with the whole path tho the test (as you mentioned),  
TestSet1= Root\TestSet\testcasetobeexecuted  
I get this result  
“Started…”  
Timeout is set to: 36000  
Run mode is set to: RUN\_LOCAL  
No test sets were found. Add some test sets or folders.

It seems that the HpToolsLauncher needs a TestSet Path and not a testCase path to be able to run the testCase…  
Any Idea ?

HpToolsLauncher v1.0.0.0

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Hi Sheeran,

I tried executing the tests within the test sets and its not able to find the folder. I also checked the latest version of the code within the Git hub(<https://github.com/jenkinsci/hp-application-automation-tools-plugin/blob/master/HpToolsLauncher/Runners/AlmTestSetsRunner.cs>) and it looks like you can only do this if you are executing tests from file system.

After that, i tried executing the specific test from file system and that works fine.

So i guess this functionality is still not available and you will have to create a separate test set, if you want to execute the single test.

I will create an enhancement request with the development team for this and let you know, if its updated.

Thanks,  
Sumeet Singh Kushwah

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1. http://1.gravatar.com/avatar/768afce892ab2c79d06b5c5500ee5d9c?s=40&d=identicon&r=G[*Petros*](http://petros/) [June 24, 2015 at 10:05 am](http://sumeetkushwah.com/2015/03/24/implementing-ci-using-jenkins-and-uft/comment-page-1/#comment-105) · · [Reply](http://sumeetkushwah.com/2015/03/24/implementing-ci-using-jenkins-and-uft/?replytocom=105#respond) →

Hello,

I created a job with “Execute HP Tests from file system”. However, I have an issue. QTP runs in fast mode and so the scripts are failed. Can I configure somewhere in Jenkins QTP to run in slow mode? Please bear in mind that despite the fact that I have select slow mode in QTP, Jenkins always change slow to fast mode.

Thank you

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Hi Petros,

You Can’t Change the execution mode to Normal, Because that’s changed by the Jenkins Plugin before triggering the tests.

I tried setting this in the remote agent setting and within the scripts, but that’s not working because jenkin’s plugin is setting just before executing the scripts.

But you can try the following things

1) Increase the browser navigation timeout seconds and the Object synchronization timeout seconds.

2) Include Exist(), Sync and Waitproperty functions within your scripts for make sure that the object exists before performing any actions.

Let me know, if you need any other help.

Thanks,  
Sumeet Singh Kushwah

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1. http://1.gravatar.com/avatar/79b92d2d504b653008ea1a77e40f27e8?s=40&d=identicon&r=G*Suresh* [July 17, 2015 at 3:40 pm](http://sumeetkushwah.com/2015/03/24/implementing-ci-using-jenkins-and-uft/comment-page-1/#comment-115) · · [Reply](http://sumeetkushwah.com/2015/03/24/implementing-ci-using-jenkins-and-uft/?replytocom=115#respond) →

Hello Sumeet,

In “Upload test Artifacts to Jenkins” section, you discuss about how to store results. Still I am bit confused with this. Can you please clarify me where this script to be placed(some where i Jenkins Configuration or in last step of UFT test cases). how are we going to get the result file into Jenkins?.

What Iam trying is ” I am executing UFT test cases which are placed in ALM from Jenkins using ‘Execute HP functional test from HP ALM’, After execution, I want to store below details in DB.

Total number of test cases executed,  
How many passed and how many failed.  
If possible, each test cases name and its status.”

Can you please help me on this activity.

Thanks,  
Suresh

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Hi Suresh,

You have to place the scripts in the first line of the UFT code, what it does is that, it will set the UFT option for exporting the datatable and the execution results report to the jenkins workspace folder. same can be achieved using the following UFT options

Once this option is set, UFT will export the HTML results and the Data table to the jenkins workspace at the end of the executions.

Now to upload the files on the jenkins you can add the post build step “Archive the artifacts” this will upload the datatable and the UFT results to the jenkins.

Now this will only store the results generated by the UFT, if you want to create a Jenkins dashboard and provide the details there then, you will have to generate the Custom Junit results and copy them to the jenkins workspace folder at the end of the executions.

Once you have the Junit results with the details about how many passed and how many failed, you can add the post build step “Publish Junit test result report”, this will upload the custom test result report to jenkins.

Let me know, if you still have questions.

Thanks,  
Sumeet Singh Kushwah

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1. http://1.gravatar.com/avatar/a2dcd2cf349191aaf30d7f82f08cbad9?s=40&d=identicon&r=G*Sridev* [July 31, 2015 at 6:05 am](http://sumeetkushwah.com/2015/03/24/implementing-ci-using-jenkins-and-uft/comment-page-1/#comment-122) · · [Reply](http://sumeetkushwah.com/2015/03/24/implementing-ci-using-jenkins-and-uft/?replytocom=122#respond) →

Hi Sumeet,

Can you please let me know how to get the ALM ‘Release name’ in the Console Output.

I will be executing more no of test cases for different release. So getting the release name from the console would give more meaning for comparison

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Hi Sridev,

There are two ways to do it,

1) If you are going to execute all of the tests for one particular release then you can use the build-name-setter plugin and change the Jenkins build name to the release name and after execution you can simply check the build name to identify that a particular execution is for what release. This is a time consuming process, but its the only way for non ALM users and some ALM users.

2) You can use the QCUTIL object for getting the release name within the executing UFT scripts and then use the reporter.reportevent for sending it to the results. Once the execution is over you will be able to see the release name in the output.

Let me know, if you need anything.

Thanks,  
Sumeet Singh Kushwah

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1. http://0.gravatar.com/avatar/61c5248a20ed7d2854330b0eea8cd89f?s=40&d=identicon&r=G*Murali Gangidi* [August 3, 2015 at 8:38 am](http://sumeetkushwah.com/2015/03/24/implementing-ci-using-jenkins-and-uft/comment-page-1/#comment-124) · · [Reply](http://sumeetkushwah.com/2015/03/24/implementing-ci-using-jenkins-and-uft/?replytocom=124#respond) →

Hello Sumeet, First of all, very knowleadgable article and thanks for putting this information together and making it public. Coming to my question, currently we have our build acceptance tests (BAT) and environment checkout scripts created in Selenium (Web driver) and they are configured to be kicked off from Jenkins (after each build). The scripts are executed on VMs in an unmanaged mode. We would like to achieve the same capabilities with UFT. I have read it in your article where you suggest to use physical desktops and I have had the same experience in the past where we had a test lab to execute our tests. But in my current organization, pretty much everything runs on VMs and our Leadership would like to keep it that way (unless we present a strong case). So we tried the do the launch RDP from Jenkins (using mstsc) but we werent successful. Do you have any other ideas and as well do you think it’s a viable solution?

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Hi Murali,

Thanks.

We had the same issues with the scripts before; here are the few things you can try  
1) First thing to be checked is, if UFT can run your scripts in a locked VM, this is actually possible for some kind of apps like simple websites. If that works then you should be good. Before checking this option, open UFT in the VM and click on Tools->Options. Click on General Tab and then click on Run Session on the left side. Check the option “Allow UFT to run GUI ..” and provide the user name and password for the machine. Now try running the script on a closed VM(but logged in). If this doesn’t work then follow the next steps.  
2) In one of my previous projects, you actually have to allocate budget for creating and maintaining VM’s and this money will go to the team who is actually maintaining the VM’s, so the case we presented is that its actually costly to maintain a VM then maintaining the physical desktops. You can get a good physical desktop for $400, easily these days. So check if that’s something is done in your organization also.  
3) If you cannot present the above case then, the solution will pretty much depend on the type of security implemented in your company. Try the following steps  
a. Configure the automatic login to the windows machines for the particular ID. This will make sure that as soon as you fire the MSTSC command machine will be connected without the need of someone providing the user id and password (I have not tried this but it should work).  
b. Once you have this setup, you can fire the below command to connect to the remote machine, in full mode.  
mstsc [] [/v:] [/admin] [/f[ullscreen]] [/w:] [/h:] [/public] | [/span] [/edit “connection file”] [/migrate] [/?]  
c. On the startup of the remote machine you can configure the scripts to start the Jenkins slave.  
d. Once the Jenkins slave starts you can trigger the scripts on the machine.  
e. In the end you can disconnect the machine using the shutdown command.

Some of the above steps like configuring the auto login might be restricted because of the security issues which it will create. This might not be the ideal solution because, again you will only be able to execute one script in one physical machine which opens the VM, but you can use the same physical machine to open different VM’s you can use it to run different kind of apps.  
4) If you cannot do the above then, you can try, leaving the VM open on the secondary monitor of your desktop. Create an additional script which will not allow the VM to lock. How I maintained it, that people have taken ownership of the VM’s during offshore and onsite timings and they will try to keep the VM open. This solution comes with its own issues, but if you face any issues let me know and we will try to resolve them.  
5) I also wanted to understand the issues faced in Using the RDP connection, I will try to replicate and resolve the issue.

Thanks,  
Sumeet Singh Kushwah

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1. http://2.gravatar.com/avatar/be2794f6479eae1eed9ae6fe2c0ac7be?s=40&d=identicon&r=G*Chandra Kalagotla* [August 3, 2015 at 10:23 am](http://sumeetkushwah.com/2015/03/24/implementing-ci-using-jenkins-and-uft/comment-page-1/#comment-126) · · [Reply](http://sumeetkushwah.com/2015/03/24/implementing-ci-using-jenkins-and-uft/?replytocom=126#respond) →

This is fantastic. Thanks a bunch!!!

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Thanks for the appreciation Chandra. Let me know, if you need any other details.

Thanks,  
Sumeet Singh kushwah

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1. http://2.gravatar.com/avatar/59b6799dd484139e6cf97ecd9d00e864?s=40&d=identicon&r=G*Suresh* [August 13, 2015 at 6:06 am](http://sumeetkushwah.com/2015/03/24/implementing-ci-using-jenkins-and-uft/comment-page-1/#comment-130) · · [Reply](http://sumeetkushwah.com/2015/03/24/implementing-ci-using-jenkins-and-uft/?replytocom=130#respond) →

Need some clarification regarding Executing tests in Parallel. I’m not seeing parallel execution option while creating new jenkins job. Please advise

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For executing same job across multiple machine, you have to go to the node configuration of each machine and change the label. Make sure you are giving the same label to all of the machines where you want to run the job. So let’s say you give label to UFT\_Machine. Next thing you will have to do is, go to the job and select checkbox “restrict where this project can be run” and in the label expression provide the label from the node configuration “uft\_machine”. Now when you run the job twice it will be randomly assign it to the machines with label “uft\_machine”.

Let me know if you have any questions.

Thanks  
Sumeet singh kushwah