

Automated vManager regression using Jenkins

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Problem Statement/Introduction

Introduction:

- Regression
 - Setup and management is a huge part of ensuring the quality of Design Verification
 - Must be run often on daily/weekly basis
 - Enables early bug catching and improves coverage

Problem Statement:

- Database management making sure that regression picks up the latest tag
- > Manual effort in running regression on daily/weekly basis
- > Scripting effort to create the automation
- > Regression status report broadcasting

Proposed Methodology/Advantages

Proposed Methodology:

- vManager is a tool that provides a robust and interactive GUI by launching regressions using a distributed resource manager and get coverage metrics.
- Jenkins with vManager executes remotely, extract runs information and generate/send status, summary and coverage report.

Advantages of using Jenkins :

- Allows data base management by using GIT or CVS, so whenever there is changed code or new commits it will pick the tag and run the tests.
- Launch the regressions in weekly and daily, based on the time settings enabled in the configuration.
- > Send the email report about the build success and build fails status
- Re-usability of different settings can be used among different projects, and it can launch regression for all subsystems within the project in same job

<u>Jenkir</u>	<u>ns Setup Detai</u>	<u>ls /Flow Chart</u>	Jenkins Setup Details				
e indicate developers managers, leads, etc. e subst check in check in	Nightly : Launch regressions at EOD daily or on specific days in the scheduled time Weekly: Launch regressions weekly once/twice on specific days in the scheduled time Smoke : Sanity regression to make sure basic test run clean after new design or test-bench updates	General Source Code Management Build Triggers Build Environment Build Post-build Actions Source Code Management Image: Console for configuring different parameters of Jenkins build Console for configuring different parameters of Jenkins build Image: Cvs Console for configuring different parameters of Jenkins build Cvs Cvs Cvs Console for configuring different parameters of Jenkins build Sos Sos Sos Sos Subversion 2 Build Triggers Trigger builds remotely (e.g., from scripts) Build after other projects are built 2 Build periodically Schedule T2=Asia/Calcutta At 10AM run Nightly regressions on all 5 days of the week (Monday to Friday)	General Source Code Management Build Triggers Build Environment Build Create/Update Text File File Patt: File Patt: build, nightlyZch Console to setup th Create at Workspace: Console to setup th #/bin/tch/dc #/bin/tch/dc #/bin/tch/dc #/bin/tch/dc #/bin/tch/dc #/bin/tch/dc #/bin/tch/dc #/display #/display #/bin/tch/dc #/display # code	Post-build Actions	Execute shell Session names are set, and execution starts here Command #///Lin/tccsh -fice Procession_make system_rightly_repress_sslc5127_date *&MakdW_bH_gH_gS' setern variancession_make system_rightly_repress_sslc522_date *&MakdW_bH_gH_gS' chood xrs_slcsion_makession_datession_state echo Srom_session_makession_datession_state echo Srom_session_makession_datession_state echo Srom_session_makession_datession_state echo Srom_session_makession(MSSPACE)/Launched nightly_sessions.txt echo Srom_session_makession(MSSPACE)/Launched nightly_sessions.txt proj_segre_sec.f \${MORKSPACE}//build_nightly2.tcsh styraxs T proj_segre_sec.f \${MORKSPACE}//build_nightly2.tcsh styraxs T # Assessments are who and put the Maxage launcher Active execution Makages former dute		
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Configure	All +									O Delete Project	mean time to repair for last 30 days : 4 days
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Conclusion

- Jenkins along with GIT and vManager enabled automated regression flow without spending human hours on running regression and collecting the results.
- There are features and plugins in Jenkins to make reports from the MDV regressions available to developers, where detailed analysis is required.
- We could leverage usage of few Jenkins plug-ins as per our project requirement, there are more to explore and exploit from this app

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