Continuous analysis with JetBrains TeamCity

This guide will show you how to integrate Kiuwan into JetBrains TeamCity.

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How to run a Kiuwan analysis from a TeamCity build step-by-step

Requirements

- 1. TeamCity Server installed and operational (you can download the professional edition for free he re).
- TeamCity Build Agents installed, you can have as many as you need in different operating systems.
- 3. An active Kiuwan account of course.
- 4. Kiuwan Local Analyzer (KLA) installed in every TeamCity Agent Machine. (Read how to install it here: Install and Start Up Kiuwan Local Analyzer)

1. Create or edit a TeamCity project

Select an existing project in TeamCity or create a new one.

In TeamCity, every project has one or more Version Control System (VCS) associated with it. This way the agent build agents take care of extracting the source code automatically. The VCS could be basically any: SVN, Git, GitHub, BitBucket, TFS, etc.

Projects	Agents 1 Build Queue 0
Administration / 88 <root project=""></root>	
BB Pet Store	
General Settings	VCS Roots
VCS Roots 1	A VCS Root is a set of settings defining how TeamCity communicates with a version control system to monitor changes
Report Tabs 1	+ Create VCS root
Parameters	
Builds Schedule	Filter Filter Show VCS roots from sub-projects
Connections 1	
Shared Resources	Name
SSH Keys	(syn) SVN Boot
Meta-Runners	fersy entries
Maven Settings	
terror Terrologie	

2. Configure an analysis step in a build configuration

The next step is to configure a new build step that will run the Kiuwan analysis in a project with an existing build configuration, or to create a new build configuration to include the Kiuwan analysis step.



Click Create build configuration or edit an existing one in the general project settings page.

3. Define Kiuwan credentials variables

In the build configuration settings screen, the first thing to do is to define two variables that will be available for the build agent at execution time to hold your Kiuwan credentials necessary to run the analysis. Look for the parameters section in the left menu.

Projects	Agents 1 Build Guesse e		Javier Salado (🕬)	Administration		Q
Administration / 11 <reet project=""></reet>	/ 11 Pet Store		Run	Actions +	Build Configur	tion Home
Kiuwan Analysis						
General Settings Vursion Control Sattings († Build Steps (‡) Triggers Failure Conditions Build Fautures Dependencies Parameters (‡)	+ Add near parameter - Configuration Parameters Configuration parameters Configuration parameters Configuration parameters Configuration Configur	whences $a_{0}^{(2)}$	property notion. O			
Agent Requirements	Name	Value				
Last edited 19 hours ago by Javier Salado (view history)	system kluwan pasoword				ER	Deloto
	system kkovan user	● jelyfsh@kkuvan.com			ER	Delote
	Environment Variables (env.) Environment variables will be added to the environment of the proce None defined	asses launched by the build runner (without env. prefix). $\ensuremath{\mathbb{O}}$				

Now define two system-level variables: **system.kiuwan.user** and **system.kiuwan.password**. This last one can be set to type = password, so it is never displayed.

4. Define the analysis step itself

Next, in the build configuration settings screen, go to the build steps configuration and create a new one to set up the analysis.

Projects v Changes	Agents 🛞 📄 Build Queue 🛞	Javier Salado v Administration	Q		
Administration / II «Reet project»	/ III Pet Store	Run Actions • Build	Configuration Home		
General Settings Version Control Settings (1) Build Steps (2)	Build Steps In this section you can configure the sequence of build steps In this section you can configure the sequence of build steps In table build steps	to be enacuted. Each build step is represented by a build runner and provides integration with a specific build or host tool. ⁽¹⁾			
Triggers Failure Conditions	Baild Step	Hard-Generic toute skeps Parameters Description			
Build Features Dependencies Parameters (2)	1. Build the application	Command Line Custom script: call setup bat Execute: If all previous steps finished successfully	Edt 💷 💌		
Agent Requirements Last edited 19 hours ago by Javier Salado (view history)	2. Analyze	Command Line Command: agent in "Siene TEAMCITY_PROJECT_NAMEN" is "Steamichy build checkoutDA'N' -1 "Wilbeld number% TeamChy" -user "Signaton Kawan user%pass Signaton Kawan passwort% Execute: If all previous steps finished successfully	Edt III V		

The analysis should take place after the build of the application. Here's how to configure this:

- 1. Set the Runner type to Command line from the pulldown.
- 2. Give the step a name.
- 3. Decide if you want to run this step depending on the result of the previous ones.
- 4. Leave the working directory empty to use the default VCS checkout directory.
- 5. And now define the command and parameters to run.
- 6. Select Executable with parameters from the dropdown menu.
- 7. Specify agent as the command to run and the following parameters to pass to the command:

```
-n "%env.TEAMCITY_PROJECT_NAME%" -s "%teamcity.build.checkoutDir%" -l "#%
build.number% TeamCity" --user %system.kiuwan.user% --pass %system.kiuwan.
password%
```

Notice that we are using TeamCity variables for the name of the application to analyze (it will be the project name), the directory where the source code is (it will be the checkout directory), a label for the analysis (it will be the build number) and the Kiuwan credentials we defined previously.

Projects (V Changes	Agents 1 🗌 Build Queue 📀		Javier Salado 9 Administration	Q
Administration / El «Root project» /	11 Pet Store		Run Actions +	Build Configuration Home
Kiuwan Analysis				
General Settings	Build Step (2 of 2): Analyze 10			+ Add build step »
Version Control Settings (3) Build Steps (2)	Runner type:	Command Line		
Triggers Failure Conditions Build Features	Step name:	Analyze Optional, specify to distinguish this build step from other steps.		
Dependencies Parameters (2)	Execute step:0	If all previous steps finished successfully v Specify the step execution policy.		
Agent Hequivements	Working directory: ©	Optional, set if differs from the checkout directory.	= 15	
by Javier Salado (view history)	Ran:	Executable with parameters v		
	Command executable: *	agent	= 1 b	
	Command parameters:	-n "Wenv.TELMCITY_PROJECT_HINE&* -s "Weemoity.build.cheokoutDirW* -1 "#Mbuild.number% TeamCity"user Wrytem.kinwen.user%pass Auvrem Vivan naveroff		

This configuration will run a Kiuwan Baseline analysis. If you want to run a delivery analysis for a change request you can define another build configuration where the analysis step will have extra parameters for the KLA agent to run a delivery analysis. Refer to Kiuwan Local Analyzer for more information on the available parameters.

5. Define a build trigger

The last thing is to define a trigger to run the build on the project on given conditions.

The typical ones will be to run a build when changes are committed to the VCS or run it periodically based on a defined schedule. TeamCity has a nice feature allowing you to run it periodically but only if there are committed changes in your VCS.

Projects + Changes	Agents 😗 🔲 Build Cusue 💿		Javier Salado v Administrat	ken Q
Administration / II «Root project» /	11 Put Store		Run Actors	Build Configuration Home
General Settings Version Control Settings (1) Build Steps (2) Triggers (1)	Triggers sealed table to the same other where an event score (the a VCS deck-in) a providually with some comparation servers. ^O			
Failure Conditions Build Features Desendencies	+ Add new trigger Trigger	Parameters Description		
Parameters (2) Agent Requirements	Schedule Tripper	Date/Time: Daily at 00:00 (Server Time Zone - CET Europe/Paris) Next scheduled time: 19-Jul 17 00:00 UTC+2 (Server Time Zone) Trippers only if there are pending changes		Edit
Last edited moments ago by Javier Salade (view history)	L			

For testing purposes, you can always run your build clicking the Run button on the top right of the above screen.

6. Run the analysis

Run the analysis interactively to test the build. You can follow the execution in the build log console.



When it finishes, you can see the final result of the execution and you have a link to access the analysis results in Kiuwan.



7. See the results in Kiuwan

Clicking the link will open your default browser and take you directly to the results summary page.

