CA BlazeMeter

Shared Component

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Version: 3.1

Filename: CA BlazeMeter Shared component for CA Release automation 6.3.docx

Date: Tuesday, 17 January 2017

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Document History

Version	Date	Description
3.0	January 16th 2017	Initial Document and Shared Component Released

Introduction

The CA BlazeMeter shared component has been created to show how CA Release Automation can be seamlessly integrated with CA BlazeMeter. The shared component includes flows that can be used to instigate CA BlazeMeter tests and on test completion either:

a) create a text file output containing the Test Results and Test URL's
b) Pass the Test Results / Test URL's as parameters
c) Update Test Cases in CA Agile Central with the test results and URL

CA Blazemeter Overview

CA BlazeMeter is a Saas based solution which allows you to run massive load tests in the cloud. Cloud computing is an ideal solution for load testing. It allows creating massive loads within minutes, but only requires you to pay for what you use. Agents can also be deployed on premise to create a hybrid solution. CA BlazeMeter was founded with the goal of making it easy for everyone to run sophisticated, large-scale performance and load tests quickly, easily and affordably. In addition to the advantages it has as a load testing cloud, BlazeMeter leverages the popular open-source performance testing framework, Apache JMeter. In fact, it's the only 100% compatible JMeter testing service.
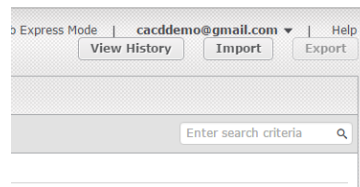
To create a CA BlazeMeter test you must first create an account (free) at https://www.blazemeter.com/ and follow the login wizard to create your first test.

Installing Shared Components

To import a shared component login to the ROC, select the Import / Export option from the Designer drop down
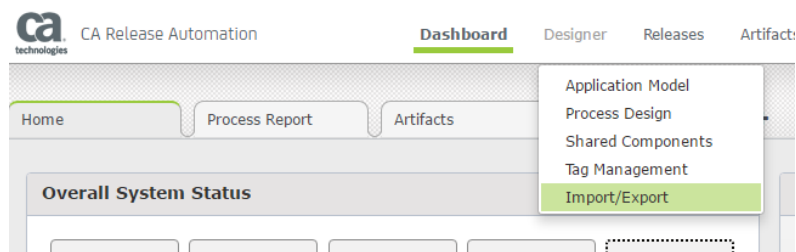
Click on the Import button on the right hand side of the screen

Click on the "Choose file" button and navigate to the file "CA-BlazeMeter-shared-component-3-1.zip" file. The import screen will look like the screen below, tick the CA BlazeMeter selection box and click import
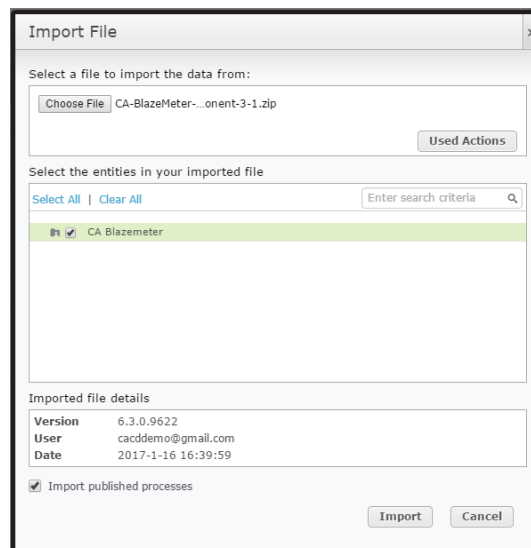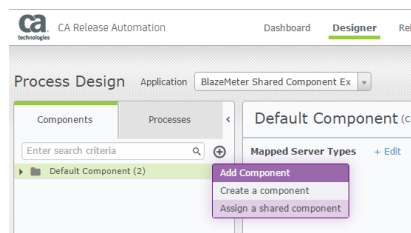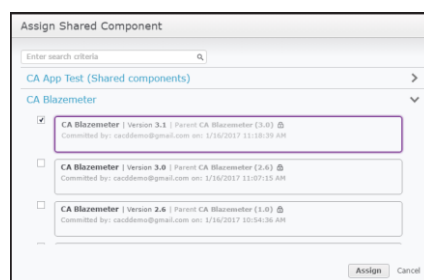
Using the CA BlazeMeter shared component

To access the CA Blazemeter shared component click on the designer drop down and select "Shared Components". The CA BlazeMeter shared component has two major flows that can be used to either run a C BlazeMeter test and post the results to CA Agile Central or post the results to a parameter / test file. In this section we will explain the steps to use the shared component
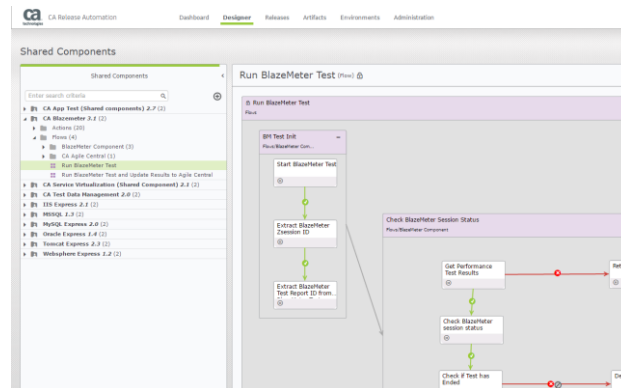

First create an empty Application Model and navigate to the "Process Design" screen, click on the + button and select the option to "Assign a shared component"


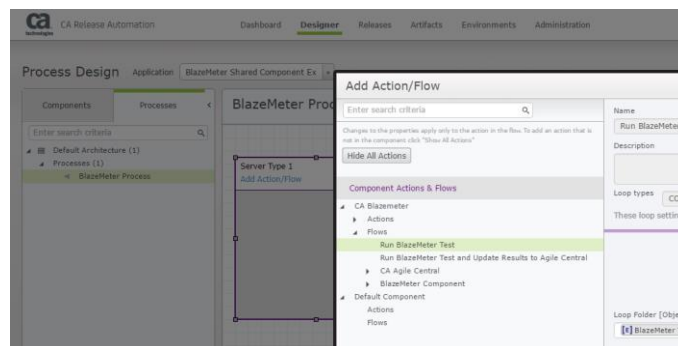Select the most current version (3.1) and click Assign

The shared component is now assigned to the application. Click on the "Map to Server type" to associate this shared component with the any server types where the shared component may be run and click save
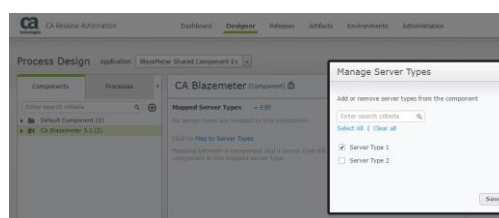
Click on the Process tab and create a new process and select the server type/s that were assigned to the shared component in the previous step. Click save
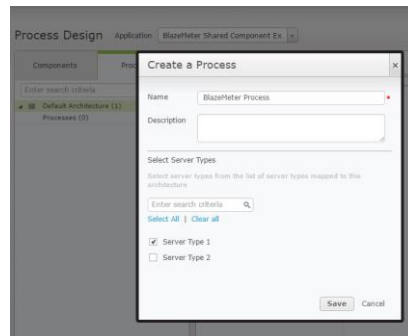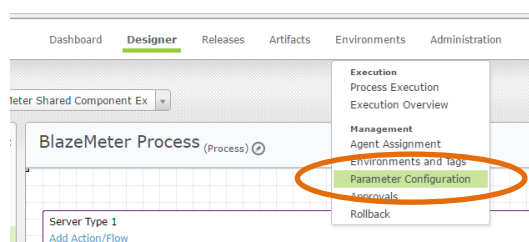

Click on the link "Add Action / flow" and select the CA Blazemeter flow "Run BlazeMeter Test" and click "add and close", click save
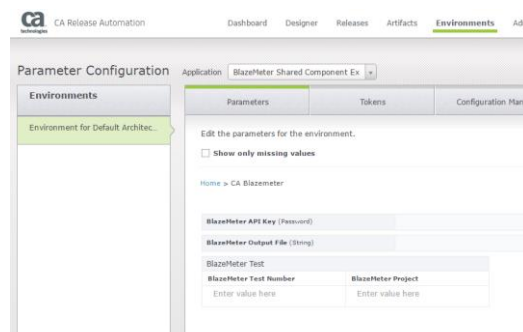

Click Publish to Publish the newly created process

The CA BlazeMeter shared component utilizes several environment parameters. To update the environment parameter values select "Parameter Configuration" from the "Environments" drop down.
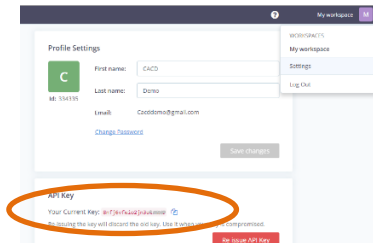

The following steps will explain how to obtain the relevant values for these parameter:

CA BlazeMeter API Key

Login to CA BlazeMeter and click on the right hand drop down and select the option "Settings". The API key panel can be used to view the Create a new API key or view the existing API key for the logged in user
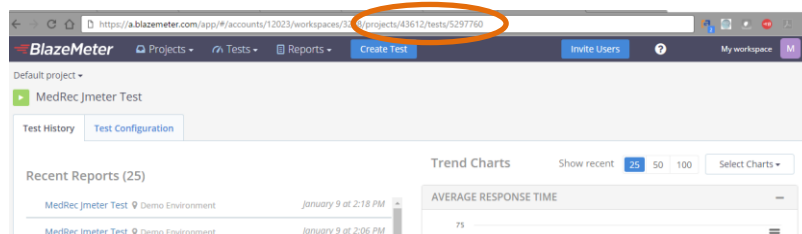

CA BlazeMeter Output file

The BlazeMeter Output file should be the full path and filename on the agent machine being used to initiate the tests the file will be where the CA BlazeMeter test results will be written to.

CA BlazeMeter Test Number and CA BlazeMeter Project Number

To locate the CA BlazeMeter Project and Test number login to CA BlazeMeter and select the test case that you would like to run, the Project and Test numbers can be found in the URL. The project number is the value between projects and tests and the tests number is the final value. In this example the Projects value is 43612 and the test being viewed is 5297760
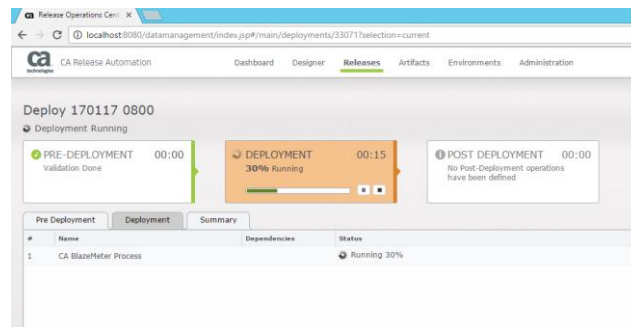

The following screen shows an example with all of the parameters set
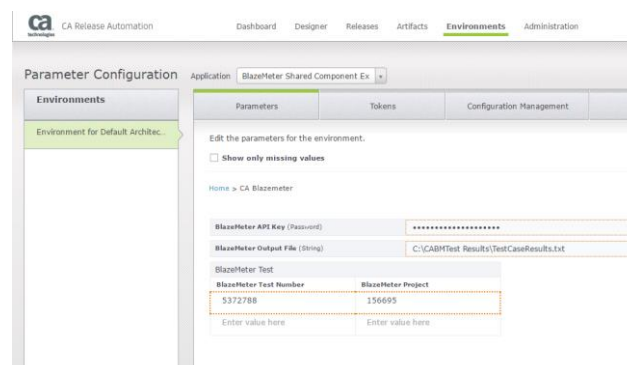
Running the CA BlazeMeter Process

To run the CA BlazeMeter Process create a deployment plan and add the process created previously, The deployment step will run until the CA BlazeMeter test has completed

To review the running CA BlazeMeter test click on the Reports tab in the CA BlazeMeter UI and click on the report with the Green icon which indicates an active test
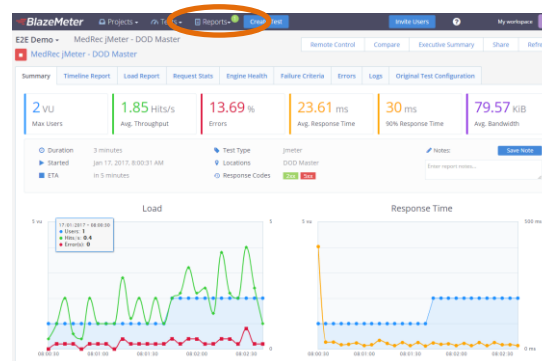
If the process flow for outputting to a file is used when the test is complete the results will be posted to the file defined in the environment parameter as shown below
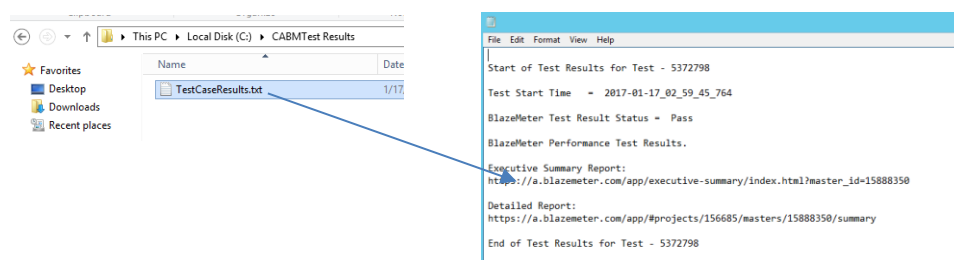
If the process flow for updating CA Agile Central is used when the test is complete the results will be posted to the test case that has been defined in the environment parameter as shown below. The Build number is set as a release parameter when calling the process.

Configuring CA BlazeMeter Tests

The CA BlazeMeter shared component will initiate the test and post the output to either CA Agile Central or a pre-defined file. The Test will be marked as either Pass or Fail, each test can be configured with "Test Failure Criteria" after a test completes the flows within the shared component will check if any of the test fail criteria were breached. If any of the criteria were breached the test will be marked as Fail

CA BlazeMeter and CA Agile Central

To utilize the process flow to output the CA BlazeMeter test results to CA Agile Central click on the Process tab and create a new process and select the server type / s that were assigned to the shared component in the previous step, click save
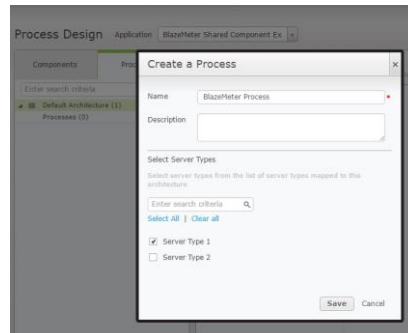
Click on the link "Add Action / flow" and select the CA Blazemeter flow "Run BlazeMeter Test" and click "add and close" and then click save

Click Publish to Publish the newly created process

The CA BlazeMeter shared component utilizes several environment parameters, to update the environment parameter values select "Parameter Configuration" from the "Environments" drop down.

The following steps will explain how to obtain the relevant values for these parameter:

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Login to CA BlazeMeter and click on the right hand drop down and select the option "Settings". The API key panel can be used to view the Create a new API key or view the existing API key for the logged in user

CA BlazeMeter Output file

The BlazeMeter Output file should be the full path and filename on the agent machine being used to initiate the tests the file will be where the CA BlazeMeter test results will be written to.

CA BlazeMeter Test Number and CA BlazeMeter Project Number

To locate the CA BlazeMeter Project and Test number login to CA BlazeMeter and select the test case that you would like t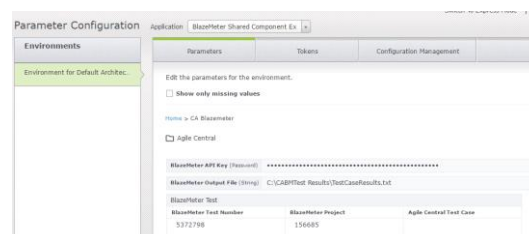o run, the Project and Test numbers can be found in the URL. The project number is the value between projects and tests and the tests number is the final value. In this example the Projects value is 43612 and the test being viewed is 5297760

CA Agile Central Test Case

For each CA BlazeMeter test associate a corresponding Test case number in Agile Central

CA Agile Central Parameters

Agile Central API Key

The process uses the CA Agile Central API Key to login and update the test cases, the API key can be found by using the following URL   https://rally1.rallydev.com/login   from this screen you can either create a new key or copy the existing key. API keys can be either Read Only or Full Access for the integration to work the key must be Full Access
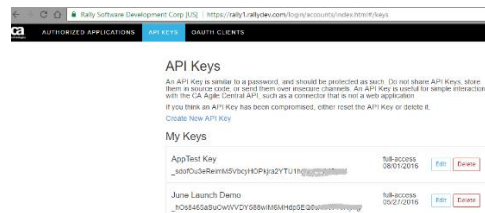

Agile Central Workspace Name

The Agile Central Workspace name can be found by logging into CA Agile Central and selecting the project drop down on the left hand side of the screen and then clicking on the tools icon in the bottom right hand corner of the drop down and   Select the Workspace to be used from this screen

The following screen shows an example with all of the parameters set for CA BlazeMeter
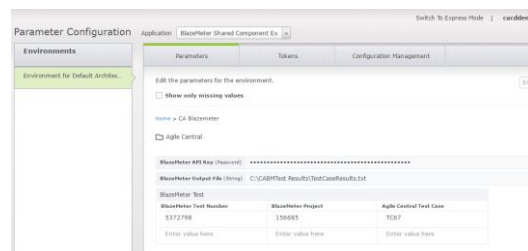
The following screen shows an example with all of the parameters set for CA Agile Central
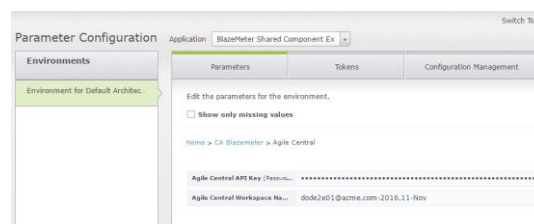
CA BlazeMeter Shared Component Internals

The Shared Component is made up of 5 flows in this section we will explain what each flows function is:

"Run Blazemeter Test" and "Run Blazemeter Test and Update Results to Agile Central"

This flow contains the primary flows and is configured as a loop and will loop through all of the CA BlazeMeter tests that have been defined in the environment parameters. The standard flow will create a text file containg the test result and also the URL's for accessing the executive summary and detail report. If the CA Agile Central flow is used the Test results and Test notes are passed to the flow "Blaze Meter Test Results Update - Agile Central"

"BM Test Init"

This flow is used as follows:

1   Initiate CA BlazeMeter test using the REST API the output is stored in the parameter "BlazeMeter TestID"
2   For the process to track the status of the newly created test the "BlazeMeter ZsessionID" parameter needs to be set, this action will extract the ZsessionID and store the value in the insternal parameter
3   The "BlazeMeter Test ReportID" is required when constructing the test URL, this action extracts the Test Report ID and stores it in the internal parameter
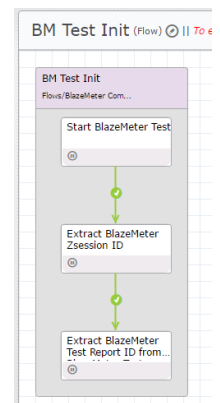
## Check BlazeMeter Session Status"

This flow is used as follows:

1   The ZsessionID parameter is used in a REST call to retrieve the current status of the running Test
2   If the REST call in step one fails the action will be retried after 5 seconds
3   Once the status of the ZsessionId has been retrieved the status of the test is extracted and saved to the parameter "BlazeMeter Test Session Output"
4   The output from the previous action is checked if the string equals END the flow will exit if the string does not match the flow will loop
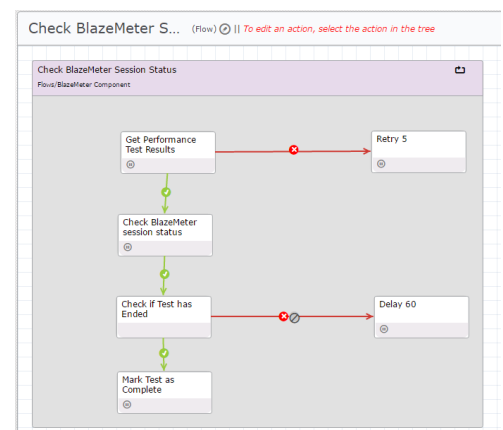
"BM Test Output"

This flow is used as follows:

1   The action will retrieve the final status of the test
2   If the Test did not run due to a lack of resources the flow will mark the test as failed
3   If the test ran the threshold value will be extracted and if greater than zero the test is marked as Fail. If the threshold value is 0 the test is marked as Pass
4
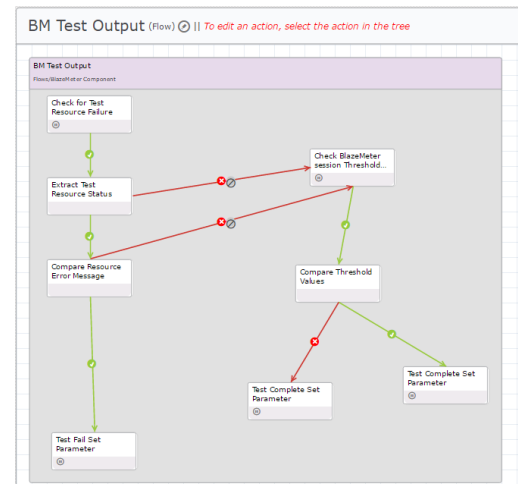
Blaze Meter Test Results Update - Agile Central

This flow is used as follows:

1   Use the Rest API to retrieve the Workspace details from CA Agile Central
2   Generate the current time / date and remove any spaces from the end of the string
3   Extract the Workspace ID from step 1
4   Use the Rest API to retrieve the ObjectID
5   Extract the TestCaseID from step 4
6   Update the CA Agile Central Test Case with the Test Results, Test Notes including the Test URL's and the Release number.