

AD SWAT

DevTest 8.3



How-To

CA CAI

CA Application Test

CA Service Virtualization

Prepared by: Koustubh Warty

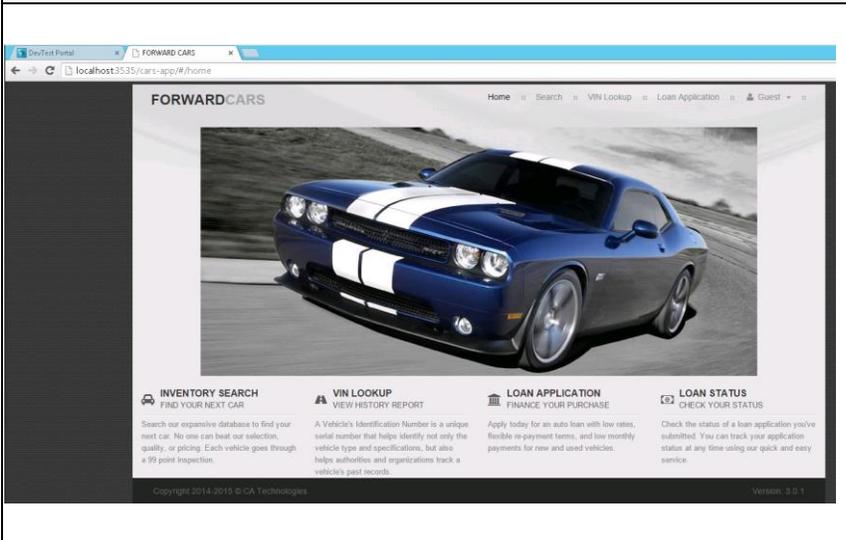
Date: August 2015

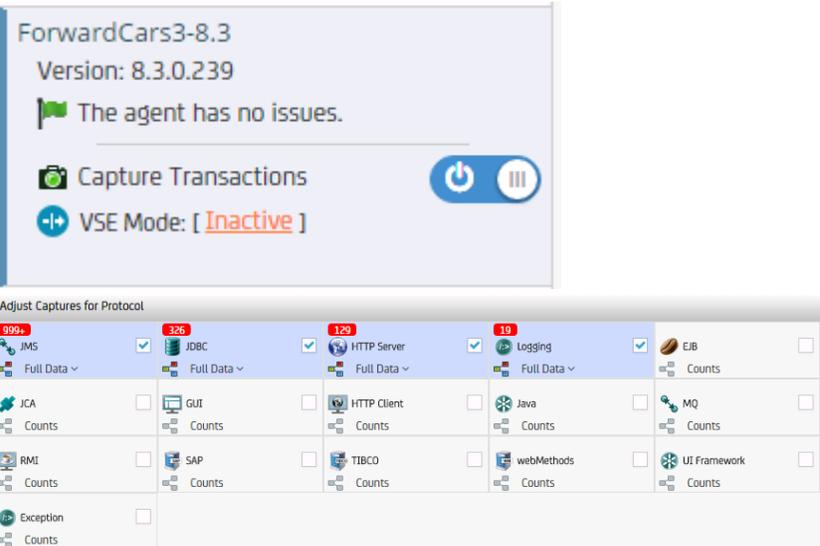
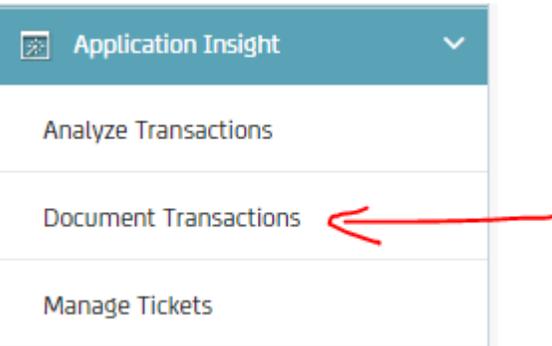
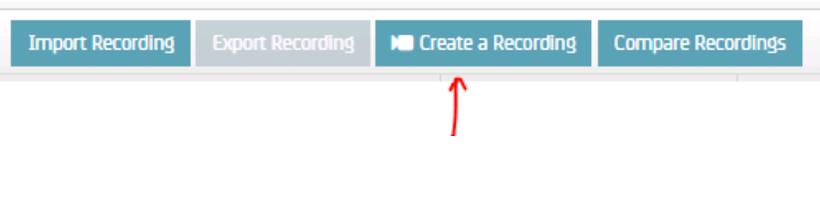
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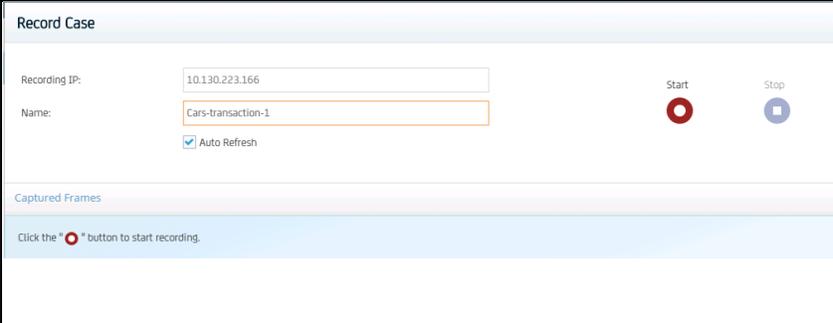
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DevTest 8.3 – CA CAI

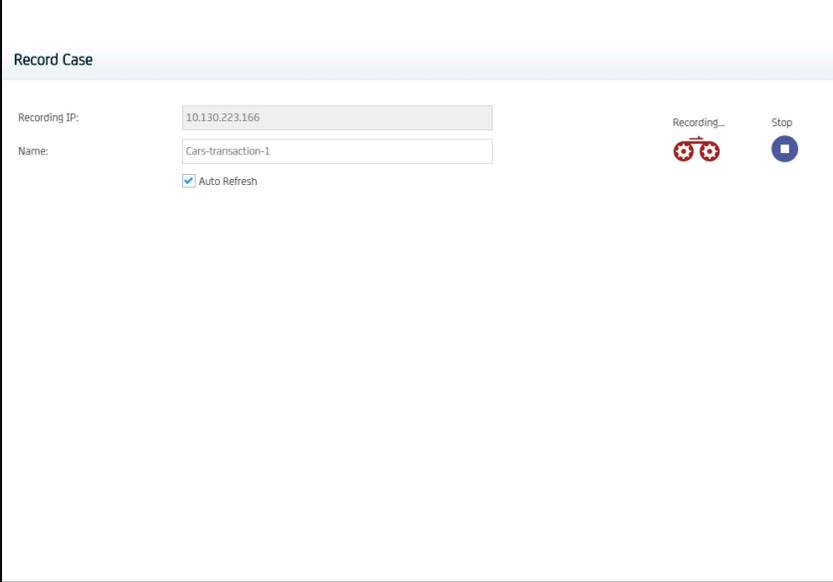
New feature – Import/Export Recordings

	<p>Starting with DevTest 8.3, we have the ability to import and export recordings created in CAI</p>
	<p>Using an application called Forward Cars that is deployed on Tomcat 7.0.55. Configured this app with the CAI agent. So when using this app, CAI agent will capture the transactions in the Forward Cars app.</p>

	<p>Verify that the Agent is configured properly to display Full Paths for the following – JMS, JDBC, HTTP Server and Logging</p>
	<p>Logged into the DevTest Portal as admin/admin. Click on Document Transactions under Application Insight.</p>
	<p>Click Create Recordings to enter information for a new recording scenario</p>

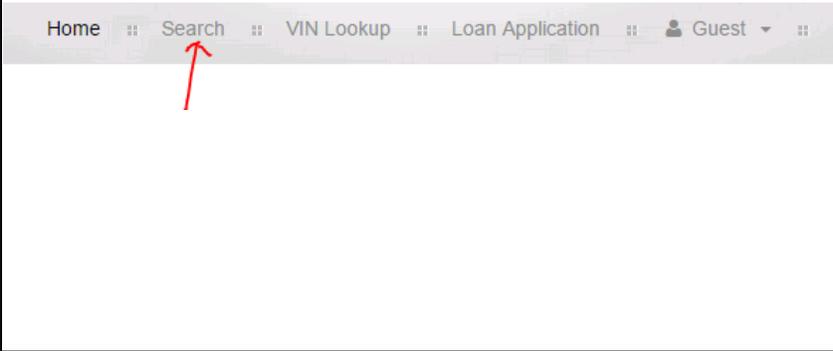


By default the Recording IP shows the local browser address. This should be good for this recording scenario. Enter a name for this recording say 'Cars-transaction-1'

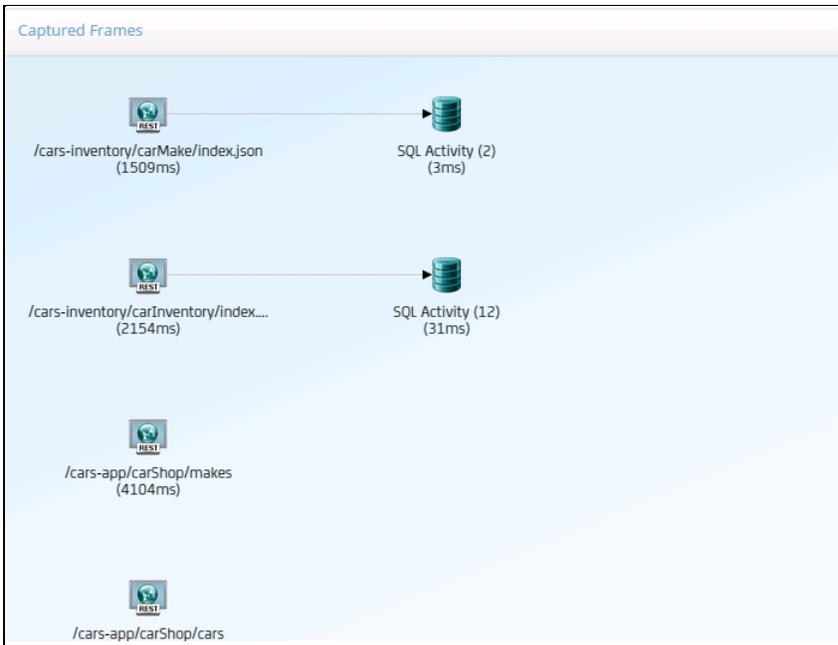


Click the Start icon to start the recording.

Notice the Start icon changes to Recording icon



Open the browser for your application, in this case the Forward Cars application. Click on the Search link to open the Search Page for various cars



Various frames will be captured.

Record Case

Recording IP:

Name:

Auto Refresh

Start Stop

Click on the Stop icon  to stop this recording. The Stop icon gets greyed out.

Save Create Document Cancel

Click on the Save button to save this recording.

Recording	Date	Owner	Actions
<input checked="" type="checkbox"/> Cars-transaction-1	08/24/2015 12:47:39 PM 574	admin	

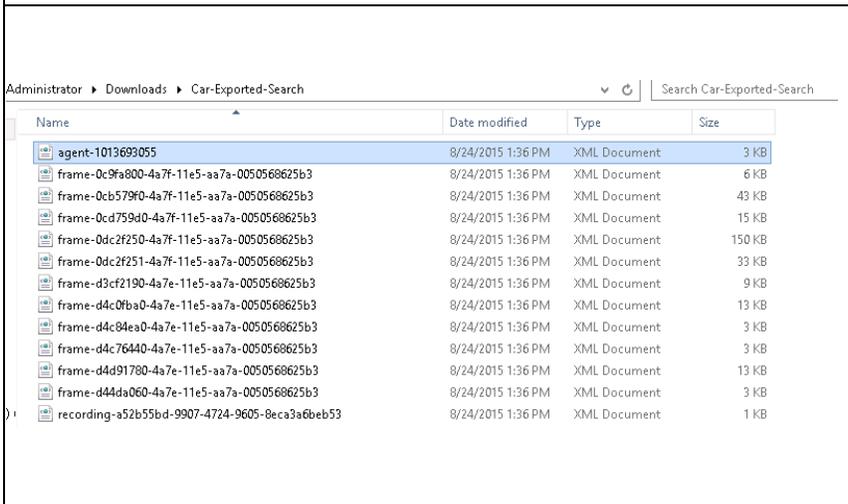
You will see a new entry in the Saved Recordings as shown.



To export this newly created recording, click on the Export Recording option under Actions as shown

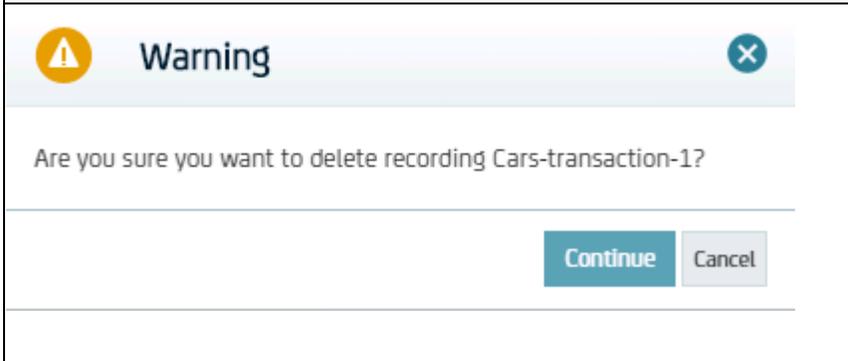


On the Export Recording popup, enter a name say 'Car-Exported-Search'. Click The Export and download recording button.



Open the extracted zip to view its contents. There will be a bunch of xml files in there.

- An agent file for the agent that captured this data
- All the frames that were a part of the recording
- Recording config file



Now let us import this recording. Importing a recording with the same name is not permitted. So let's delete the existing recording 'Cars-transaction-1'. Select Continue to delete the recording

Import Recording Export Recording Create a Recording Compare Recordings

Import Recording

1. Select the zip file containing recording to import:

Car-Exported-Search.zip Choose

2. Confirm the following information:

Recording	Date	Owner	Imported
Cars-transaction-1	08/24/2015 12:47:39 PM 574	admin	

Import OK Cancel

Now import the same zip file that you exported a few mins back.

Click on Import Recording and provide relevant information as required and click Import

Import Recording

1. Select the zip file containing recording to import:

Car-Exported-Search.zip Choose

2. Confirm the following information:

Recording	Date	Owner	Imported
Cars-transaction-1	08/24/2015 12:47:39 PM 574	admin	Yes

Import OK Cancel

After the import is completed, the Imported column entry will show 'Yes' and the Import button will be greyed out and the OK button will be enabled.

Click OK

Confirmation

Recordings were successfully imported.

OK

Success message is displayed. Click OK to see the imported recording.

<p>The screenshot shows a 'Saved Recordings' section with a table containing one entry: 'Cars-transaction-1' with a date of '08/24/2015 12:47:39 PM 574' and owner 'admin'. Below the table, a 'Recording of: Cars-transaction-1' section displays a list of transaction frames:</p> <ul style="list-style-type: none"> /cars-inventory/carMake/index.json (1509ms) /cars-inventory/carInventory/index... (2154ms) /cars-app/carShop/makes (4104ms) 	<p>Imported Recording details are displayed</p>
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New feature – Shelf Frames (Advanced)

<p>The screenshot shows a context menu with the following items:</p> <ul style="list-style-type: none"> Shelve Frame Shelve All Occurred Transactions Shelve Frames (Advanced) (highlighted with a red line) Unshelve Pin Transaction Capture Share Transaction Time 	<p>This new feature lets you shelve the same category of transaction frames from the following options –</p> <ul style="list-style-type: none"> - by selecting frames from the list - from search results by selecting the frames from the list
--	---

Car Detail

Audi A4-B

Price:	\$3995
Mileage:	138560
Owners:	6
Model Year:	2011
Color:	Silver
Trim:	Premium Plus
Owners:	6
Engine:	2.7 V6
Transmission:	Auto

 VIN: 2T1KR32E37C639014 Auto Finance OK

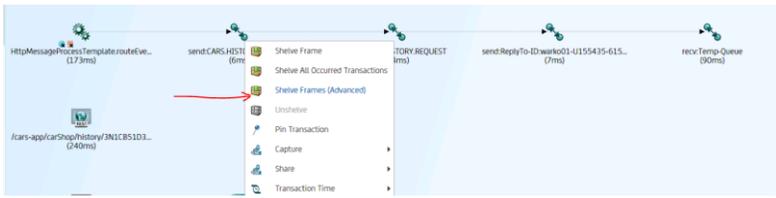
In the Forward Cars UI, click on the Search link to bring up the list of available models/makes. Do a ***couple of searches*** by clicking on the links on the left. Make sure you click on the VIN buttons of those cars to get more information on the car.

URL	Time	Duration	Response Size	Forward Cars	Actions
/cars-loan/services/vinDecoder	08/25/2015 11:42:42 A.	36 ms	31 ms	ForwardCars3-8.3	
HttpMessageProcessTemplate.routeEvent	08/25/2015 11:42:42 A.	173 ms	46 ms	ForwardCars3-8.3	
/cars-app/carShop/history/3N1CB51D35458774	08/25/2015 11:42:42 A.	240 ms	62 ms	ForwardCars3-8.3	
/cars-inventory/carInventory/3N1CB51D35458774	08/25/2015 11:42:38 A.	136 ms	124 ms	ForwardCars3-8.3	
/cars-app/carShop/car/3N1CB51D35458774	08/25/2015 11:42:38 A.	304 ms	78 ms	ForwardCars3-8.3	
/cars-inventory/carMake/3/models.json	08/25/2015 11:42:37 A.	230 ms	218 ms	ForwardCars3-8.3	
/cars-app/carShop/makes/3/models	08/25/2015 11:42:37 A.	418 ms	171 ms	ForwardCars3-8.3	
/cars-inventory/carInventory/index.json	08/25/2015 11:42:35 A.	334 ms	327 ms	ForwardCars3-8.3	
/cars-inventory/carMake/index.json	08/25/2015 11:42:35 A.	74 ms	78 ms	ForwardCars3-8.3	
/cars-app/carShop/makes	08/25/2015 11:42:35 A.	141 ms	62 ms	ForwardCars3-8.3	
/cars-app/carShop/cars	08/25/2015 11:42:35 A.	853 ms	202 ms	ForwardCars3-8.3	
/cars-app/features/	08/25/2015 11:42:34 A.	43 ms	46 ms	ForwardCars3-8.3	
/cars-inventory/carMake/2/models.json	08/25/2015 11:42:24 A.	340 ms	280 ms	ForwardCars3-8.3	
/cars-app/carShop/makes/2/models	08/25/2015 11:42:24 A.	755 ms	374 ms	ForwardCars3-8.3	
/cars-inventory/carMake/index.json	08/25/2015 11:42:23 A.	152 ms	124 ms	ForwardCars3-8.3	

In the DevTest Portal, you should see all those new transactions show up which you performed in the previous step. Make sure you are in the List view as shown



Now let's change the view to Graphical. For our example, let's locate the JMS category frame as shown.



Let's select the JMS category here. Right click on any of the JMS category frame and select 'Shelve Frame (Advanced)'

Shelve Frames (Advanced)

Same category of frames from this transaction
 Same category of frames from the search result

Name	Start Time	
send:ReplyTo-ID:warko01-U155435-6157...	08/25/2015 11:42:42 AM 182	<input type="checkbox"/>
send:CARS.HISTORY.REQUEST	08/25/2015 11:42:42 AM 089	<input type="checkbox"/>
recv:Temp-Queue	08/25/2015 11:42:42 AM 104	<input type="checkbox"/>
recv:CARS.HISTORY.REQUEST	08/25/2015 11:42:42 AM 104	<input type="checkbox"/>

Shelve Frames

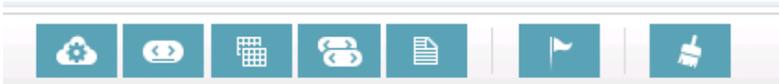
This opens up the config window. As expected you will see all the same category frames for this transaction which is the default option. In this case, the category selected is JMS as shown

Shelf: 4 Items

Name	Category	Status	Virtual Service	Baseline	Data Set	Agent
send:ReplyTo-ID:warko01-U155435-61571-1440515249588-3:1:5	JMS	Shelved: Frame	Quintess	Expanded	DS, RDP	Agent: ForwardCars3-8.3
send:CARS.HISTORY.REQUEST	JMS	Shelved: Frame	Quintess	Expanded	DS, RDP	Agent: ForwardCars3-8.3
recv:Temp-Queue	JMS	Shelved: Frame	Quintess	Expanded	DS, RDP	Agent: ForwardCars3-8.3
recv:CARS.HISTORY.REQUEST	JMS	Shelved: Frame	Quintess	Expanded	DS, RDP	Agent: ForwardCars3-8.3

Click on Shelve Frames to add the 4 frames to the shelf.

Notice the POI is created for each frame and a look at the shelf will show you the result of the above.

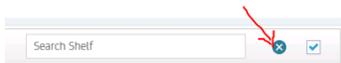


Based on your requirement now you could create the Virtual Service or Tests or RR pairs, etc

Shelf: 4 Items

Name	Shelved	Virtual Service	Baseline	Data Set	Agent
send:ReplyTo-ID:warko01-U155435-61571-1440515249588-3:1:5	Frame	Standard	Expanded	DD, HTTP	Agent: ForwardCars3-8.3
send:CARS.HISTORY.REQUEST	Frame	Standard	Expanded	DD, HTTP	Agent: ForwardCars3-8.3
recv:Temp-Queue	Frame	Standard	Expanded	DD, HTTP	Agent: ForwardCars3-8.3
recv:CARS.HISTORY.REQUEST	Frame	Standard	Expanded	DD, HTTP	Agent: ForwardCars3-8.3

- For now let's remove all the frames from the Shelf. Check the box at the top on the right that selects all the frames for removal. Then click the



to remove the frames. At this time the shelf will be empty.

Let's go back to the graphical view and on the same transaction, select the same frame as last time and select the same Shelve Frames (Advanced) option to bring up the configuration page. On this page, select the second option about the Search result.

Shelve Frames (Advanced)

Same category of frames from this transaction
 Same category of frames from the search result

Name	Start Time	
send:ReplyTo-ID:warko01-U155435-6157...	08/25/2015 11:42:42 AM 182	<input type="checkbox"/>
send:ReplyTo-ID:warko01-U155435-6157...	08/25/2015 11:42:20 AM 876	<input type="checkbox"/>
send:CARS.HISTORY.REQUEST	08/25/2015 11:42:42 AM 089	<input type="checkbox"/>
send:CARS.HISTORY.REQUEST	08/25/2015 11:42:20 AM 740	<input type="checkbox"/>
recv:Temp-Queue	08/25/2015 11:42:42 AM 104	<input type="checkbox"/>
recv:Temp-Queue	08/25/2015 11:42:20 AM 772	<input type="checkbox"/>
recv:CARS.HISTORY.REQUEST	08/25/2015 11:42:42 AM 104	<input type="checkbox"/>
recv:CARS.HISTORY.REQUEST	08/25/2015 11:42:20 AM 756	<input type="checkbox"/>

Shelve Frames

Changing the selection, changes the results. Instead of 4 frames you will now see multiple frames. This is because this time, based on your search filter, all the JMS category frames are selected.

As before you can click on Shelve Frames to add them to the Shelf and go about creating Virtual Services, Tests, RR pairs, etc.

New feature – Usage Count

Start Time: 08/25/2015 11:42:42 AM 061
Transaction ID: ec16d3d0-4b3f-11e5-846c-0050568625b3

Wall Time: 173ms
Usage Count: Enable

You can view the usage counts for identical and partial transaction paths by selecting the **Enable** checkbox for the **Usage Count** field at the top of the path graph.

/cars-loan/services/vinDecoder	08/25/2015 11:42:42 A.L.	36 ms	31 ms	ForwardCars3-8.3	
HttpMessageProcessTemplate.routeEvent	08/25/2015 11:42:42 A.L.	173 ms	46 ms	ForwardCars3-8.3	
/cars-app/carShop/history/3N1CB51D35458774	08/25/2015 11:42:42 A.L.	240 ms	62 ms	ForwardCars3-8.3	

Let us use the same transaction that we used in the previous exercise.

Click on  for the selected transaction to open the Transaction Detail Page

Start Time: 08/25/2015 11:42:42 AM 061
Transaction ID: ec16d3d0-4b3f-11e5-846c-0050568625b3

Wall Time: 173ms
Usage Count: Enable

HttpMessageProcessTemplate.routeEvent

Start Time: 08/25/2015 11:42:42 AM 061
Transaction ID: ec16d3d0-4b3f-11e5-846c-0050568625b3

Wall Time: 173ms
Usage Count: Enable

```

    graph LR
      A[HttpMessageProcessTemplate... (173 ms)] -- 2 --> B[sendCARS.HISTORY.REQUEST (6 ms)]
      B -- 2 --> C[recvCARS.HISTORY.REQUEST (94 ms)]
      C -- 1 --> D[sendReplyTo ID:warko01-U... (7 ms)]
      D -- 1 --> E[recvTemp-Queue (90 ms)]
  
```

ForwardCars3-8....
(warko01-U155435...)

Check the Enable box to display the counts between the frames.

You will see the counts between various frames.

Let's see how these numbers are calculated and shown

The counts are based on the search results. The search results are displayed depending on the Search criteria entered by the user. By default it is 1 day. In this case, that has been



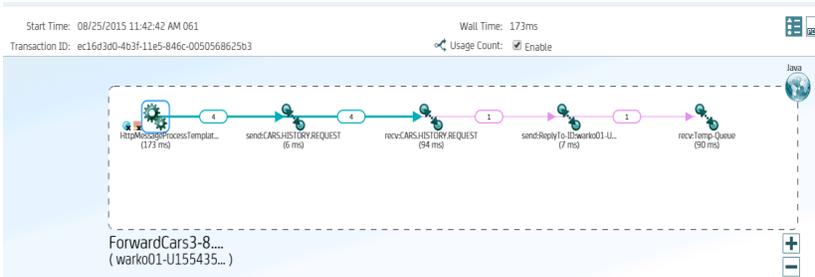
customized to 30 mins in this button

Advanced ▾

As a result, count =2 means that the 2 frames connected have communicated with each other twice in all the search results within those 30 mins.

Click on Show Legend  that appears once the Enable box is checked.

This will show the color coding which shows light color for lowest traffic and the brightest color for highest traffic.



Now let's change the Search filter to 1 day which means all the transactions over the past 1 day will be displayed.

Select the same transaction as before to view its Transaction Detail Page. Enable the count as done previously.

You will notice that the usage count numbers are different this time. The reason being that this time the Search is wider in terms of the transactions. A bigger number this time means that the frames have communicated with each other much more. Notice the color coding for the Usage Count 1 and 4.

DevTest 8.3 – CA Application Test

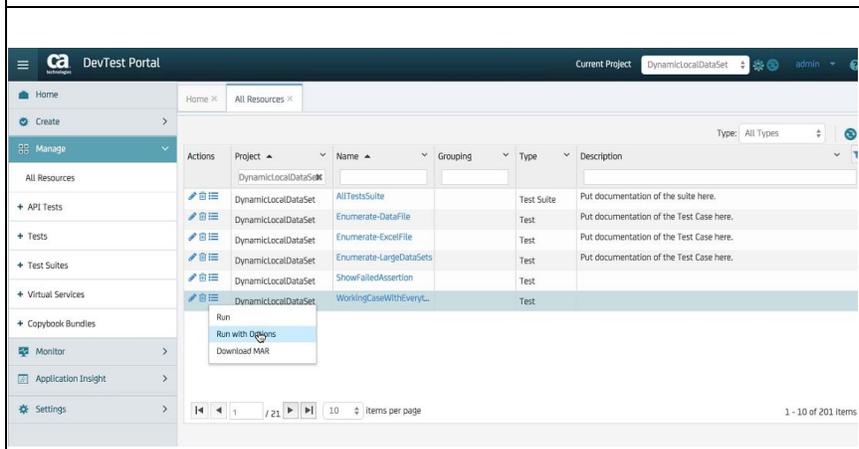
New feature – Test Execution time properties

As a part of 8.3, added a feature that assists in summarization of the execution results of test cases provided you have access to the existing Reporting Console.

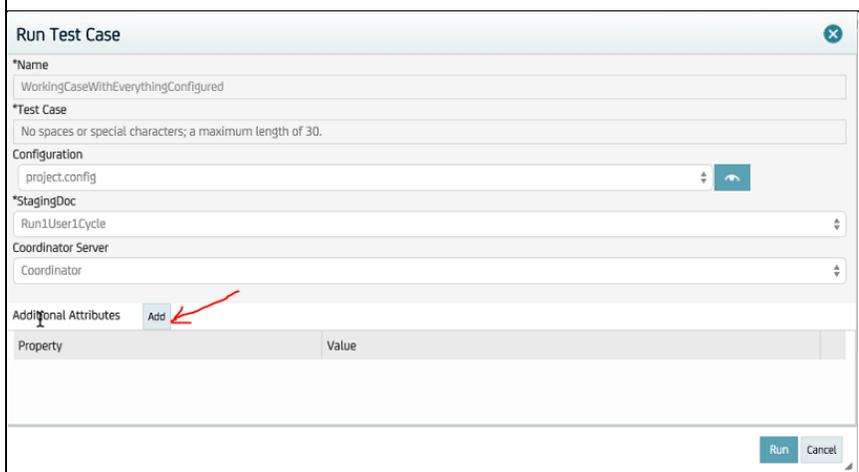
Benefits - Create/run reports results summarized by user defined properties. Filter it based on existing properties or also custom properties is now supported.

Any name value pair can be passed during staging the test. Then from the Reporting Console, you can filter based on the custom properties.

Another thing you can do is to override the existing properties in the configuration files.



In the DevTest Portal, searched for an existing Test case in the All Resources link. Single click and select Run with Options.



On the Run Test Case screen, click on the Add option to add a new name-value pair.

Additional Attributes Add

Property	Value
App	Cars
Ver	1.1
Build	109

Added 3 new name value pairs as shown. Now click the Run button to run this test case.

Summary (Last 7 Days) Last Refreshed: 08/21/2015 12:50:16 PM

8	8	1	1	0	1
Passed	Failed	Aborted	Errors	Warnings	Running

Suites/Tests

Filter by 'Name' | Filter by 'Executed By' | Tests Suites | Passed Failed Aborted Running

Name	Status	Messages	Start Time	Duration	Executed By	Description
<input checked="" type="checkbox"/> WorkingCaseWithE...			08/21/2015 12:50:01	...	admin	

Once the test case completes go to the Reporting Console

Search Criteria

Start ... 20 Aug 2015 12 PM

End D... 21 Aug 2015 1 PM

Recent Apply

Filter: -- SELECT --

Show All Filters

USER = ALL AND

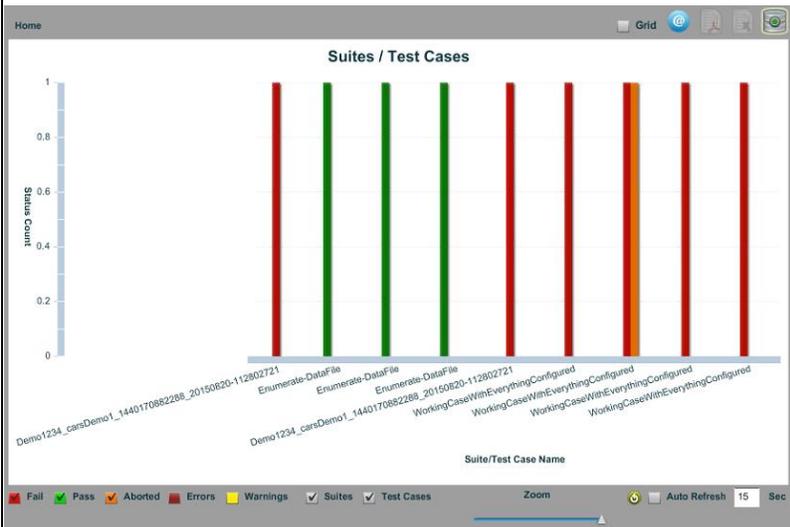
Suite Name = ALL

- App
- AppName
- Build
- IsQuickStaged

You will see the 3 custom name-value properties in the dropdown box of the Filter.



Select the parameter name App and the default value of Cars. Click the Add button to select this filter.



You will see the result on the right side with the execution result of the test case that were found based on the filter selected. Similarly you can add the other 2 params as well and filter based on all the 3 params as required.

Now let's look at how you can override an existing property during staging of the test case

Summary (Last 7 Days) Last Refreshed: 08/21/2015 12:50:48 PM

8 Passed 9 Failed 1 Aborted 1 Errors 0 Warnings 0 Running

Suites/Tests

Filter by 'Name' | Filter by 'Executed By' | Tests Suites | Passed Failed Aborted Running

Name	Status	Messages	Start Time	Duration	Executed By	Description
WorkingCaseWithE...	Failed		08/21/2015 12:50:01 PM	3.0s	admin	

Back in the DevTest Portal's Monitor tab. Click on an existing test case to drill down into the various steps

Status StagingDoc Documentation

0 Passed 1 Failed 0 Aborted 0 Errors 0 Warnings

Status: Failed Runs: Run1User1Cycle End Time: 08/21/2015 12:50:04 PM

Cycle Details Cycle Num: 0 Status: Failed VUsers: 0 Start Time: 08/21/2015 12:50:01 PM Duration: 2.5s

Work Flow Expand All Collapse All

Filter by 'Name' | Steps Quiet Steps Fired Assertions Evaluated Assertions Filters Data Sets Companions

JSON Ignore Nodes Companion

/cars-app/assets/cars/login/login.html Request/Response 08/21/2015 12:50:01 PM 16ms 237bytes

Request	Response
<pre> 1 GET /cars-app/assets/cars/login/login.html 2 HTTP/1.1 3 Pragma: no-cache 4 Cache-Control: no-cache 5 connection: keep-alive 6 accept-language: en-US,en;q=0.5 7 host: pftest01:3400 8 user-agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:10.0) Gecko/20100101 Firefox/40.0 </pre>	<pre> 1 <div class="container"> 2 <div class="row"> 3 <div class="col-md-4 col-md-offset-4"> 4 <div class="panel panel-default"> 5 <div class="panel-heading"> 6 <h3 class="panel- 7 title">Please sign in</h3> 8 </div> 9 <div class="panel-body"> </pre>

Then select a step that ran against a particular server that was configured in the config file.

DynamicLocalDataSet	ShowFailedAssertion	Test
DynamicLocalDataSet	WorkingCaseWithEvery...	Test

Run
Run with Options
Download MAR

Let's rerun the same test case as before

Run Test Case

*Name WorkingCaseWithEverythingConfigured

*Test Case No spaces or special characters; a maximum length of 30.

Configuration

project.config

Property	Value
PORT	3400
WSSERVER	pftag014
SPACE	
SERVER	pftag014
WSPORT	3400

In the Run Test Case window, click on the icon shown to bring up the list of params in the project.config file. Notice the WSSERVER parameter with an existing value. We will now update this parameter.

Configuration

project.config

Property	Value
PORT	3400
WSSERVER	pfagt014
SPACE	
SERVER	pfagt014
WSPORT	3400

*StagingDoc
Run1User1Cycle

Coordinator Server
Coordinator

Additional Attributes **Add**

Property	Value
WSSERVER	dummyhost

Run Cancel

Now click on the Add button in the Additional Attributes area and add a property name with the same name as in the project.config for the WSSERVER parameter and provide a value. Notice in this case, we are providing some name to show that the substitution works at runtime.

Click Run.

Overview > WorkingCaseWithEverythingConfigured

Test - WorkingCaseWithEverythingConfigured

Status StagingDoc Documentation

0	1	1	1	0
Passed	Failed	Aborted	Errors	Warnings

Status: ✘ Runs: Run1User1Cycle
End Time: 08/21/2015 12:57:23 PM

Cycle Details Cycle Num: 0 Status: Aborted VUsers: 0 Start Time: 08/21/2015 12:57:19 PM Duration: 3.6s

Work Flow Expand All Collapse All

Filter by 'Name' | Steps Quiet Steps Fired Assertions Evaluated Assertions Filters Data Sets Companions

Event Actions | Passed Failed Aborted

- JSON Ignore Nodes Companion
- /cars-app/assets/cars/login/login.html **1 errors**
- abort
- Fail Test Case Companion

```

Timestamp: 8/21/2015, 12:57:22
/cars-app/assets/cars/login/login.html :
-----
| java.net.UnknownHostException: dummyhost
|-----
| Step: /cars-app/assets/cars/login/login.html
|-----
| Message: dummyhost
|-----
| Trapped Exception: dummyhost
| Trapped Message: java.net.UnknownHostException: dummyhost

```

Once the test starts running, it would fail at the first occurrence of the WSSERVER with the bad host name.

Note that if you give it the correct name of the host, it should run correctly!

DevTest 8.3 – CA Service Virtualization

New feature – Copybook User Interface

The DevTest Portal has a new capability as a part of 8.3 release for Copybooks. You can now load and edit copybooks, create mapping files and save them for use in a Virtual Service recording.

Some of the features include –

- Direct importing and navigating of copybooks, mapping files and bundles of the copybooks + mapping files in the DevTest Portal
- Ability to "parse" Copybooks to error check prior to use. This includes smart error messages + quick ability to fix the copybook error within our user interface
- Automatic error checking of mapping file entries with the ability to view the code directly for editing as necessary
- Ability to create new "Copybook Bundles" which include the copybook + the mapping files

Here is the link that takes you through the recording -

<https://catechnologies.webex.com/catechnologies/lsr.php?RCID=8e004f22d85342478e9be13d0f90d94>

1 s