

HammerDB

HammerDB Microsoft SQL Server Quick Start

This quick start tutorial gets you up and running with the essentials of load testing and benchmarking for the Microsoft SQL Server database.

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Install HammerDB

To install HammerDB follow the [HammerDB installation guide](#). Before proceeding you should have your Microsoft SQL Server database software installed and running. Firstly you will need to select which benchmark and database you wish to use by choosing select benchmark from under the TPC menu. The initial settings are determined by the values in your config.xml file. Select MSSQL Server and TPC-C and press OK as shown in Figure 1.

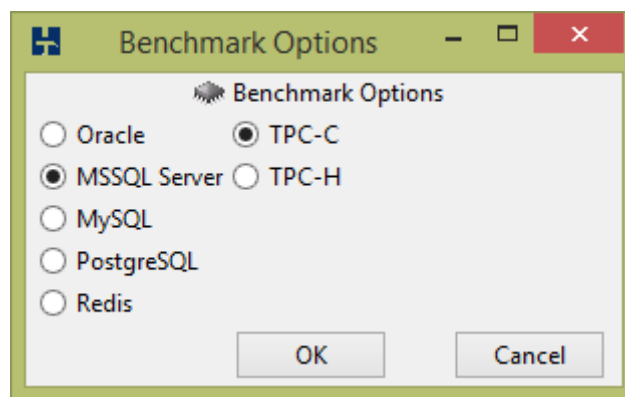


Figure 1 TPC-C Schema Options

You are now ready to begin building a schema as shown in Figure 2.

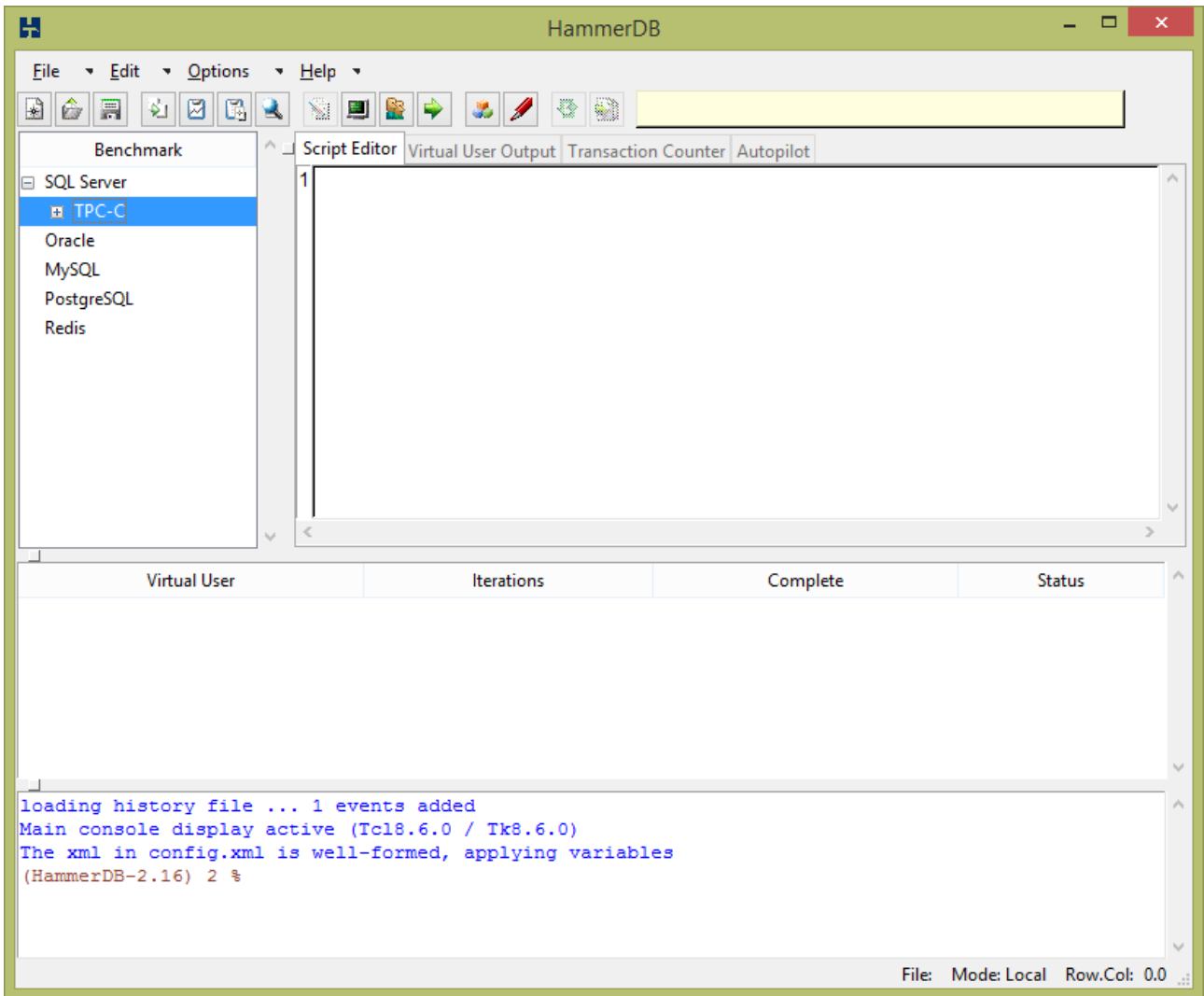


Figure 2 HammerDB

Build a Microsoft SQL Server Test Schema

Click on the Benchmark tree view and under TPC-C select TPC-C Schema options to display the TPC-C Schema options window as shown in Figure 3. Within this window enter the connection details of your SQL Server and a database name – this can already exist as an empty database you have already created or if it does not already exist will be created during installation. Select a number of warehouses with the slider, 10 is good for a first test and set the Virtual Users to build schema to the number of CPU cores on your system. Click OK.

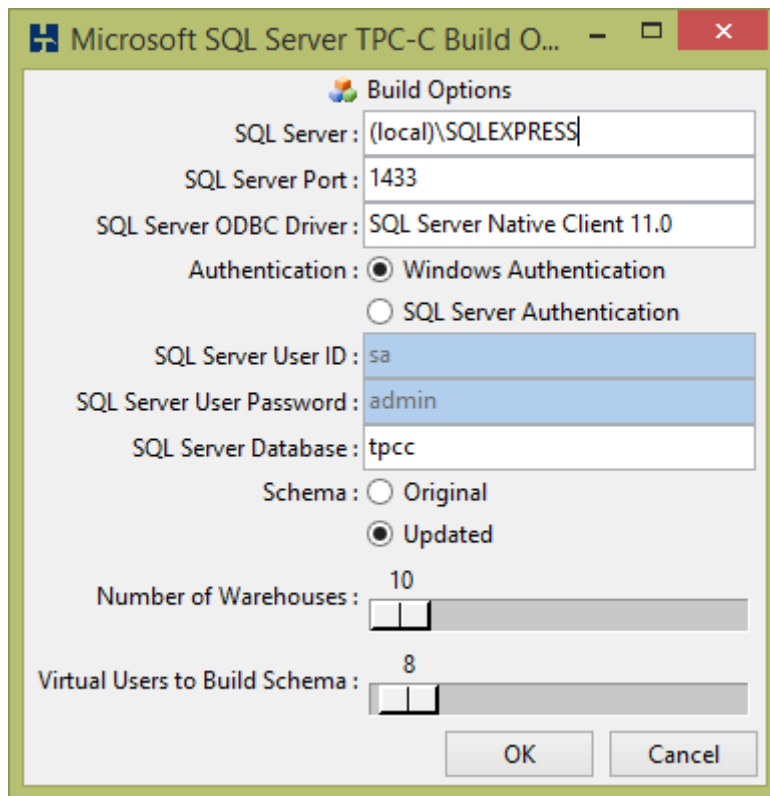


Figure 3 TPC-C Schema Options

Double-click on the Build option as shown in Figure 4.

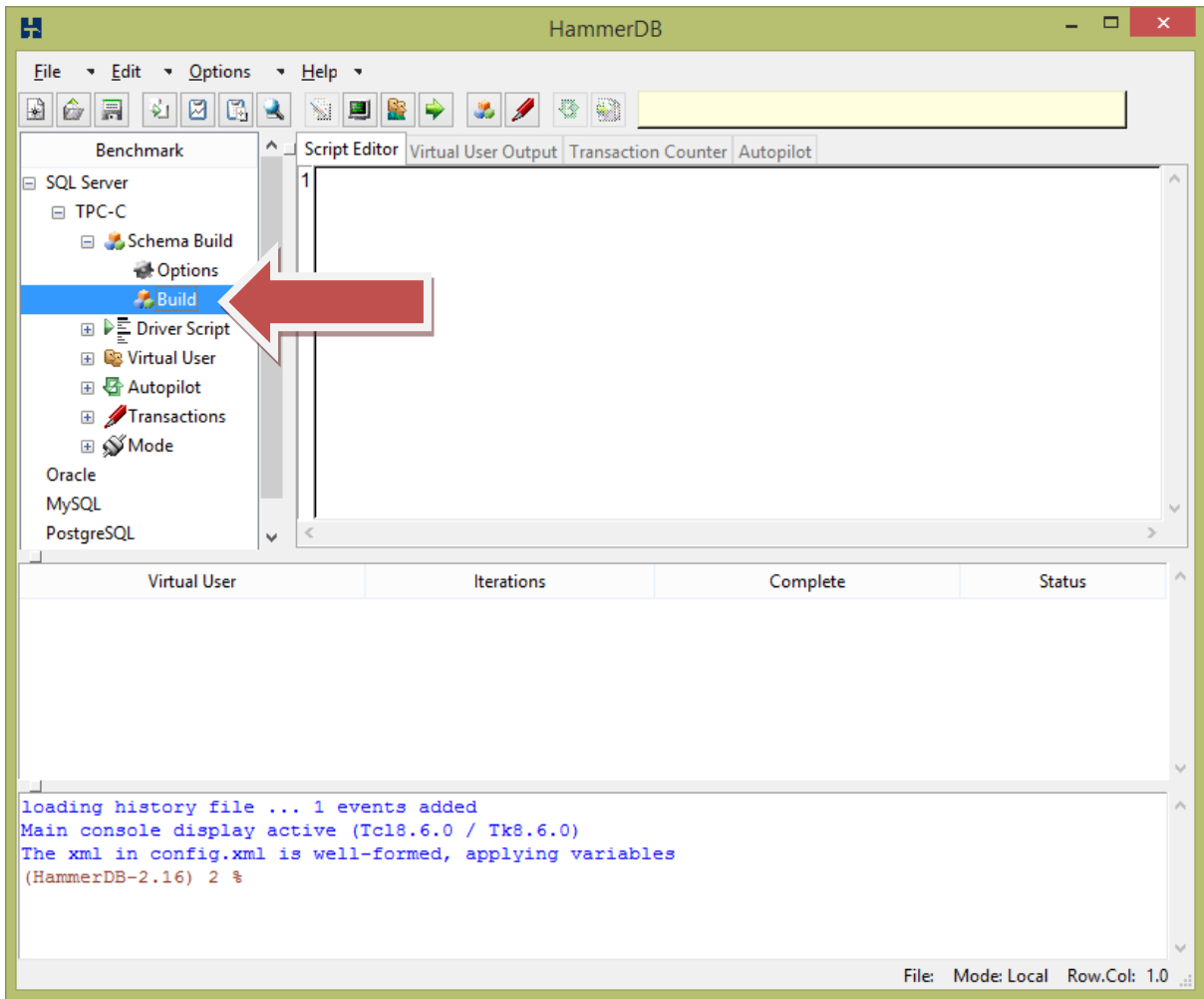


Figure 4 Build Options

On the Create Schema prompt check the details and Click Yes.

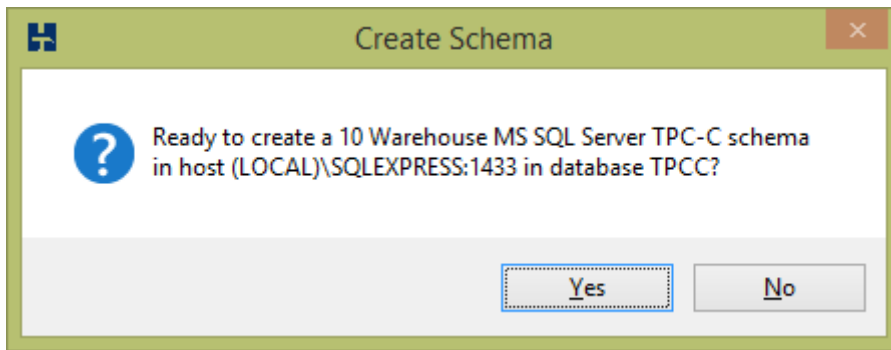


Figure 5 Create Schema Prompt

Wait for the Schema creation to complete, the time to completion depends on your system but should normally be less than 5 minutes.

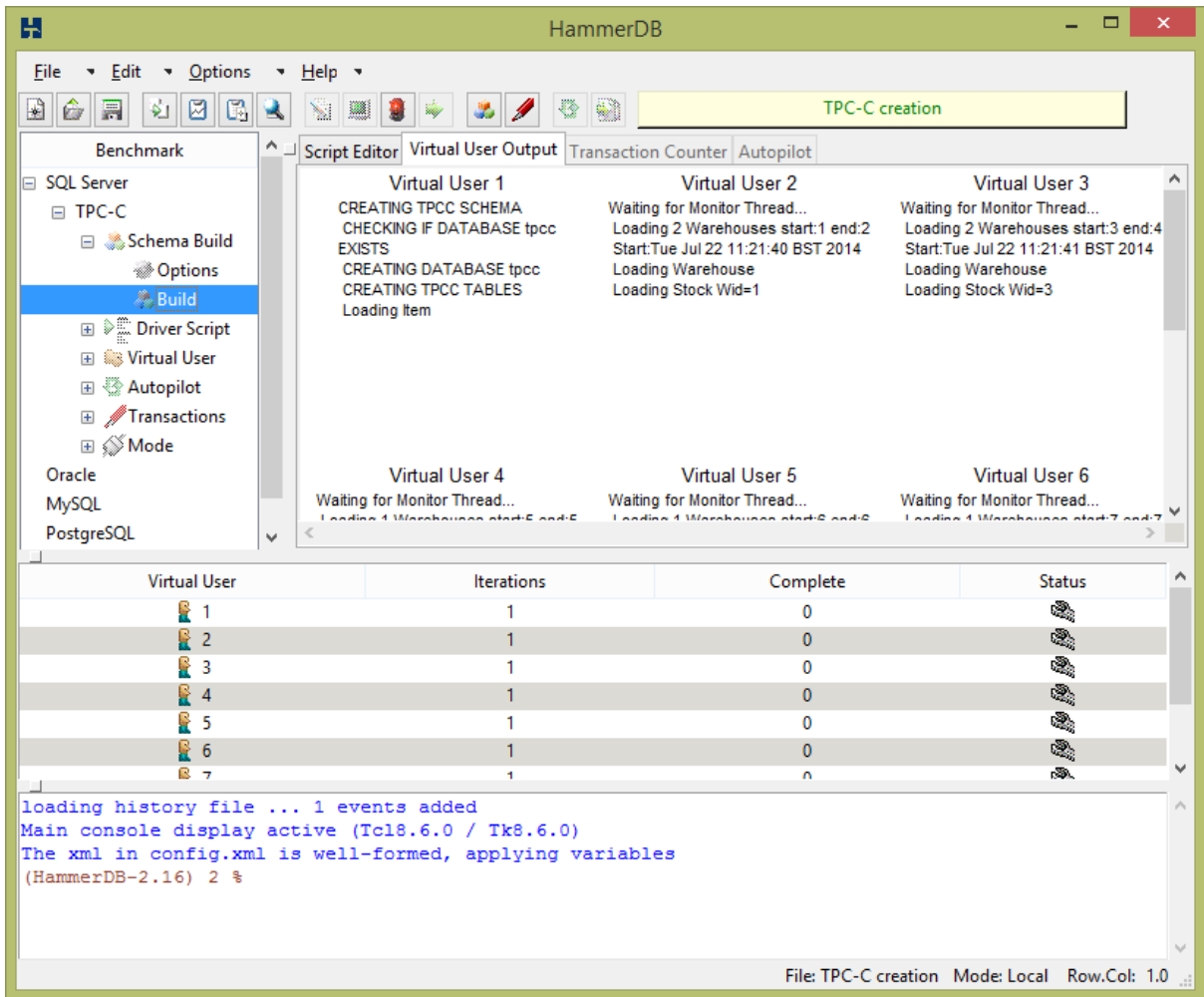


Figure 6 Schema Creating

When the Display shows TPCC SCHEMA COMPLETE and all users have completed successfully the build is finished. Press the red traffic light icon to close the users down.

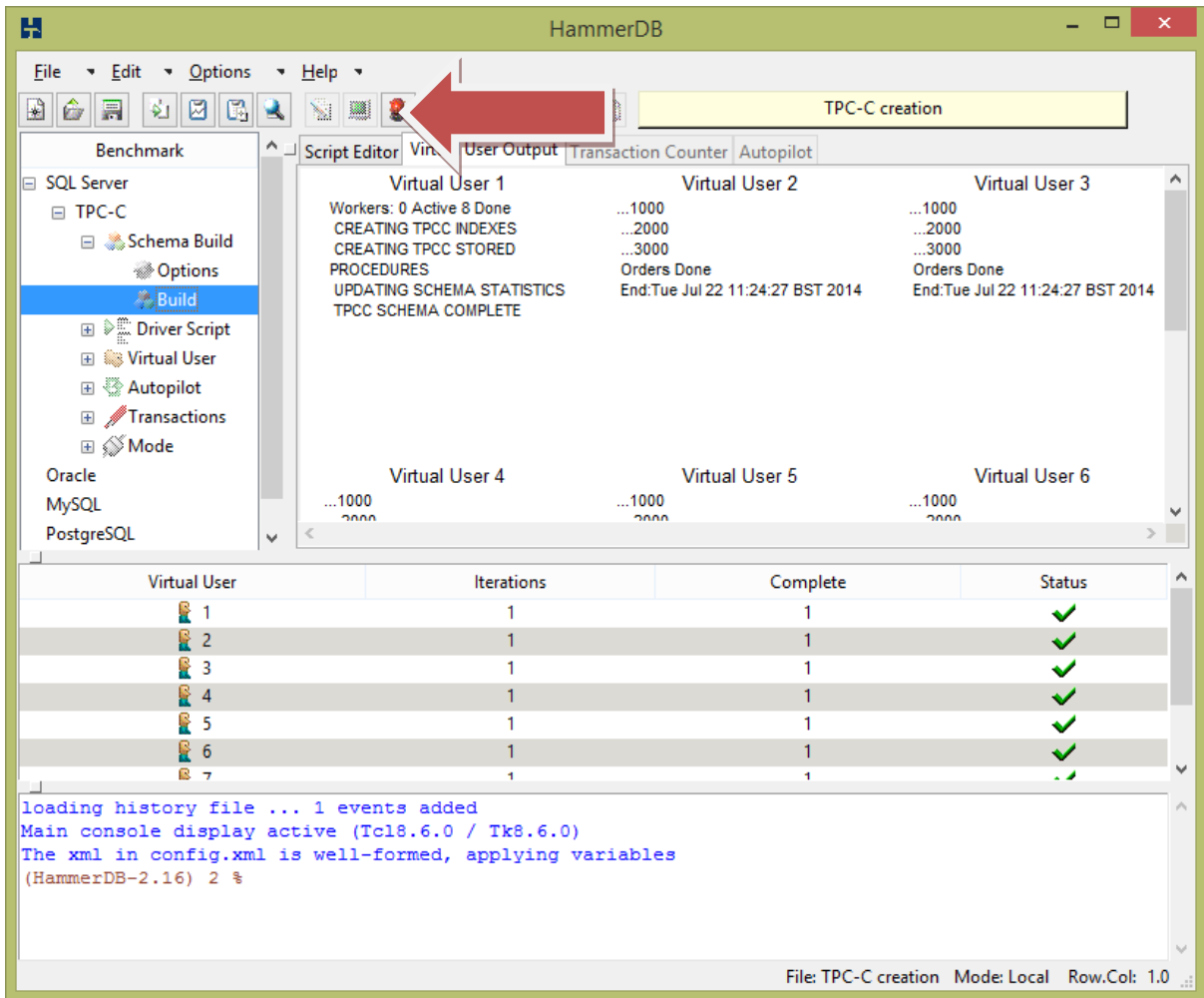


Figure 7 Schema Complete

Run a Microsoft SQL Server Load Test

You can now proceed to run a load test against your created schema. Under the benchmark tree view select Driver Script and options. The choices to select for the driver script are displayed. Note that the service name and usernames if changed for the build options will also be reflected here. Accept the default values and click OK.

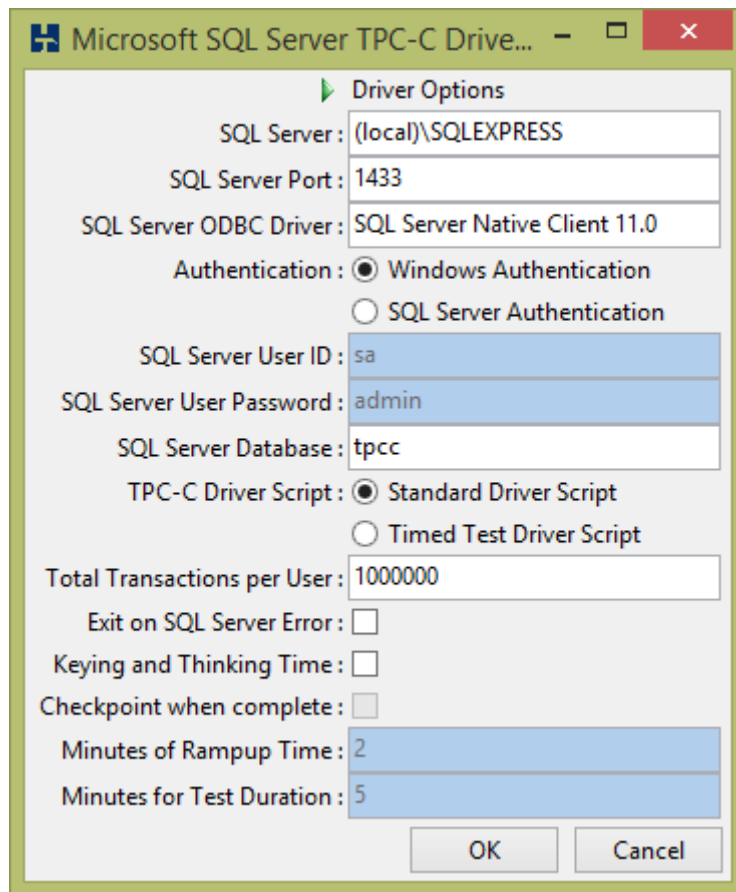


Figure 8 Driver Options

Now select the Driver Script option and double-click on Load as shown in Figure 9, this populates the Script Editor window with the driver script. You can observe that the EDITABLE OPTIONS correspond to the driver script options set in the previous step. You do not need to edit the script.

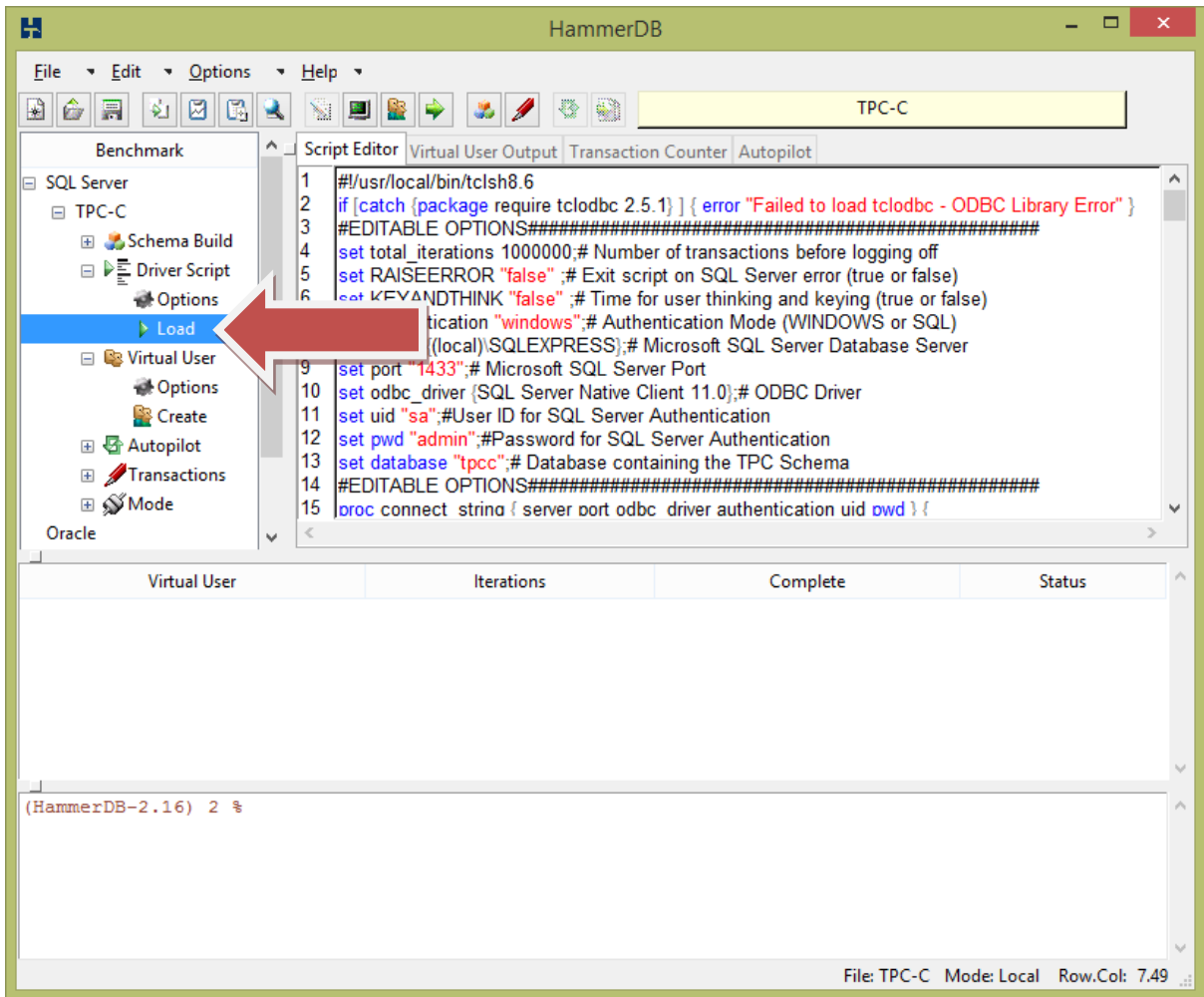


Figure 9 Driver Script

Under the Virtual User view double-click on Options and enter the number of users you wish to run against your system. Don't select too many to start with as the workload is intensive. If you wish check the Show Output button to see what your users are doing whilst the test is running, however note that displaying the output will reduce the overall level of performance and click OK.

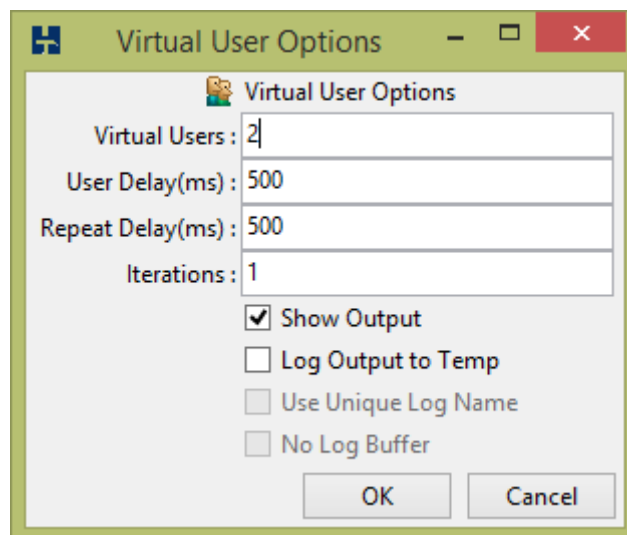


Figure 10 Virtual User Options

Double-click on Create Virtual Users as shown in Figure 11 to create the virtual users, they will not start

running yet.

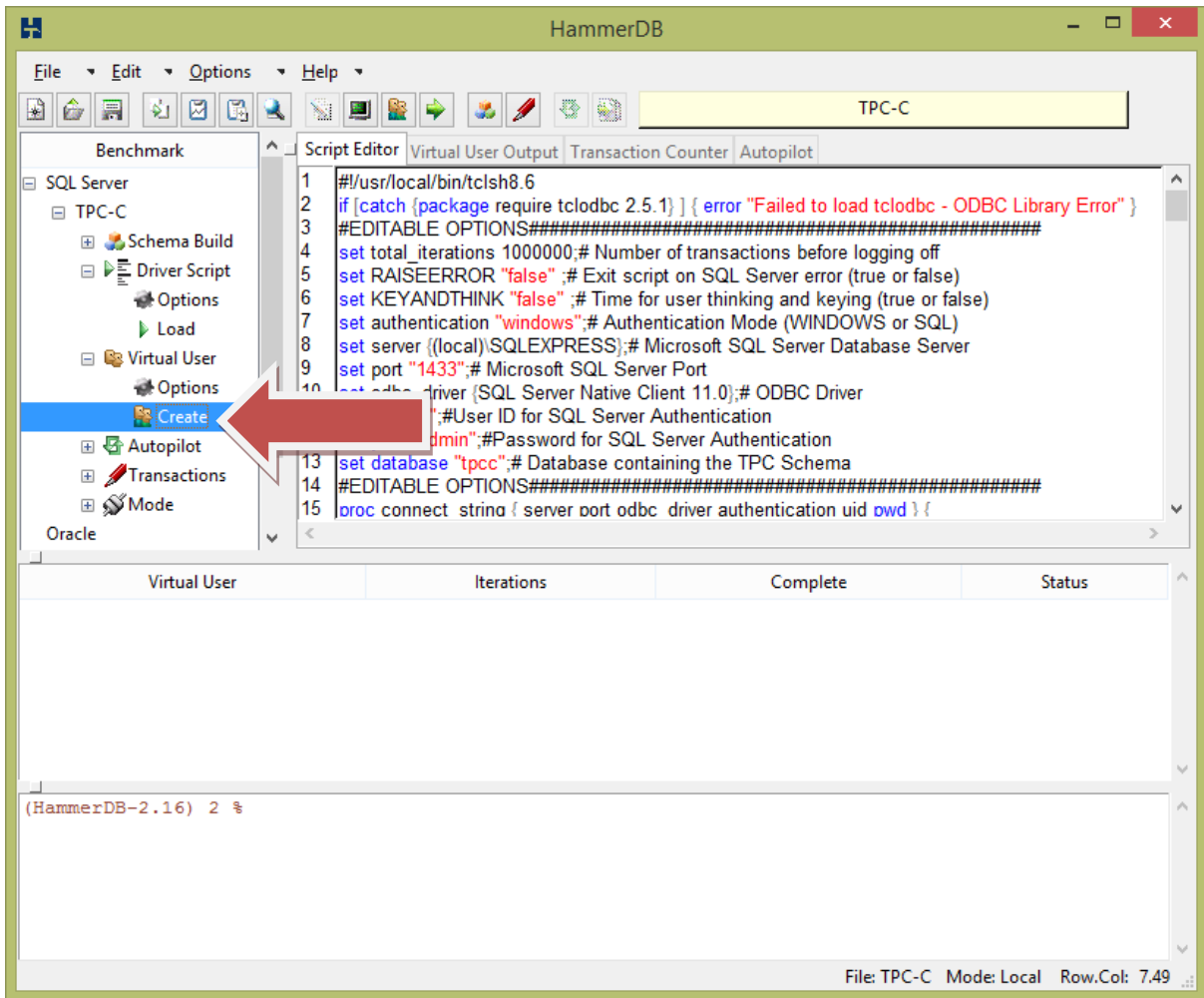


Figure 11 Create Virtual Users

You can observe that the virtual users have been created but their status is shown as waiting. Now click the Run Virtual Users button as shown in Figure 12 to start the test. The virtual users will begin to execute the driver script in the Script Editor Window.

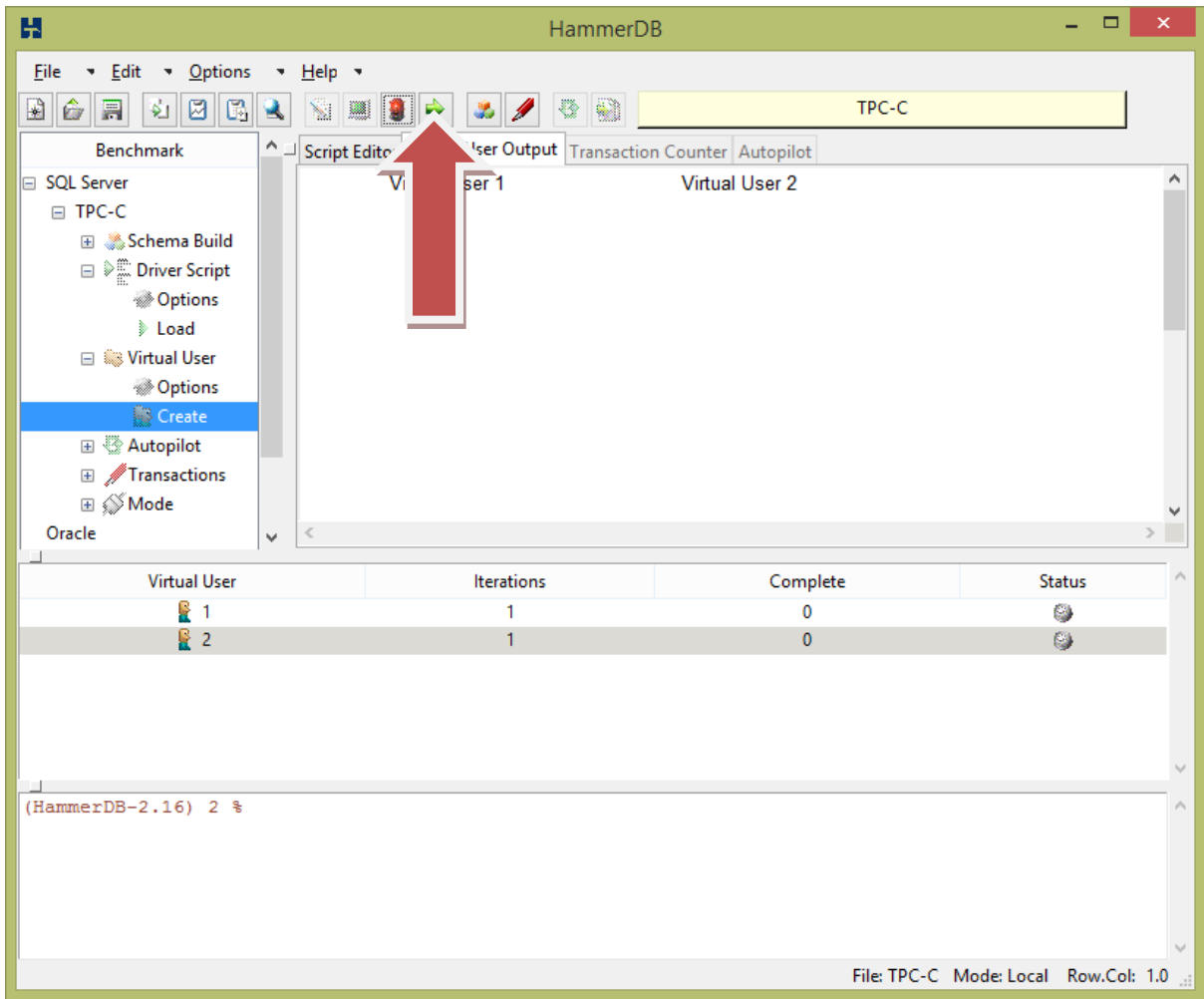


Figure 12 Run Virtual Users

You can now observe that the load test is in progress as the virtual users display their output.

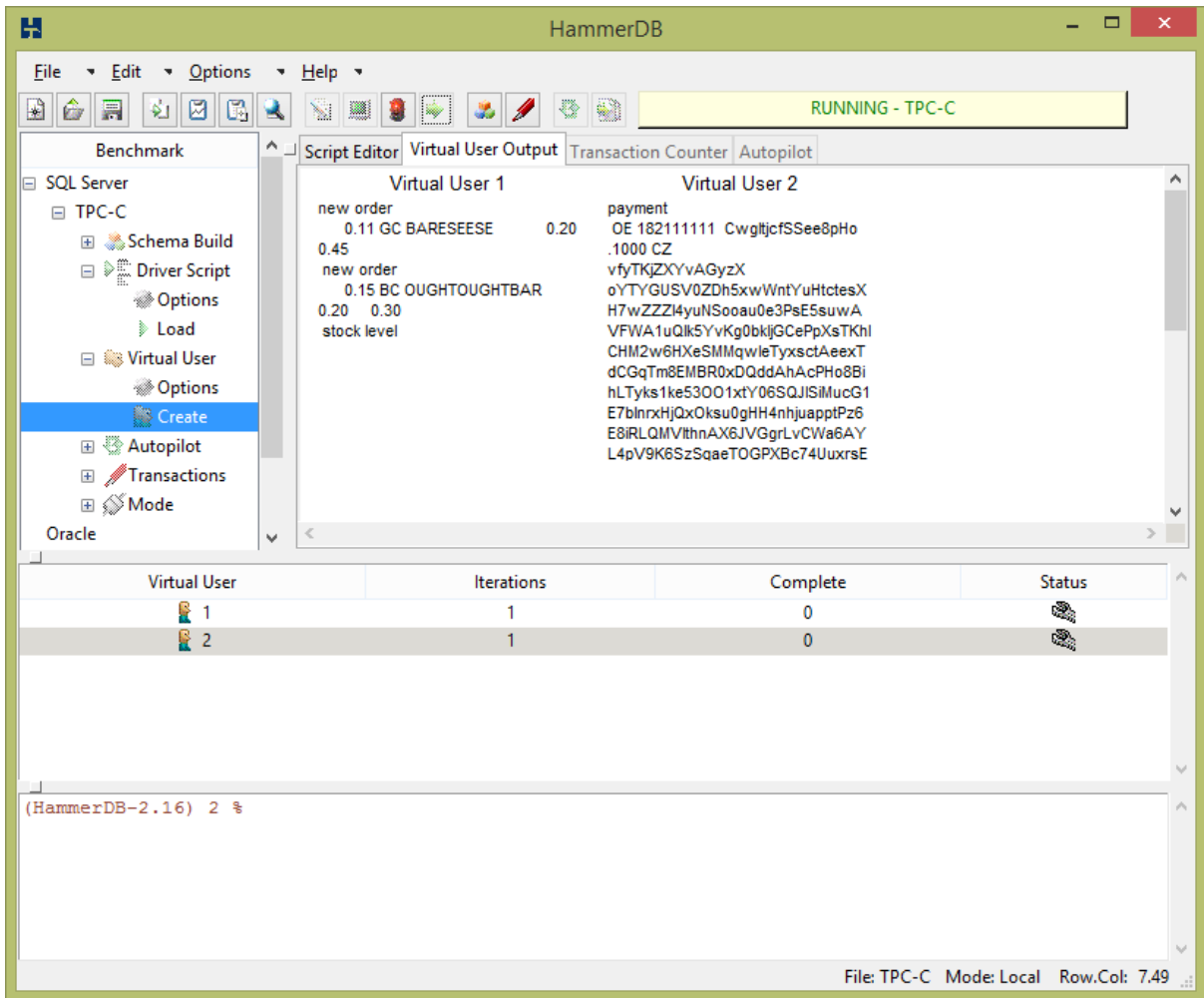


Figure 13 Running a Load Test

Also observe with HammerDB [Metrics](#) that a load has been placed on the system.

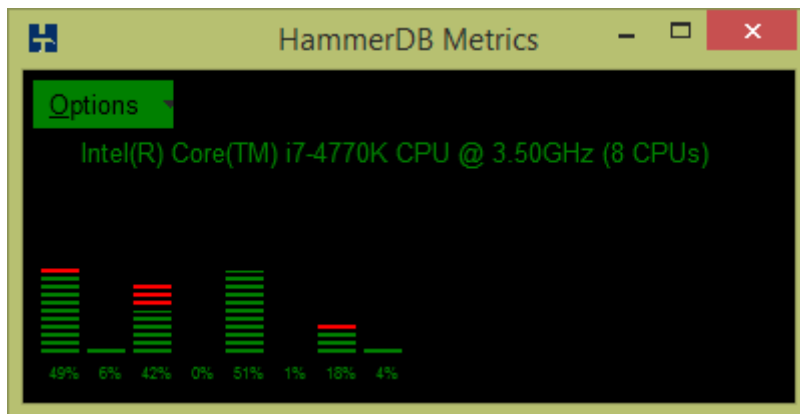


Figure 14 HammerDB Metrics

The load will complete when all virtual users have completed the number of transactions you defined or can be stopped by pressing the red traffic light icon as shown in Figure 14 to destroy the virtual users.

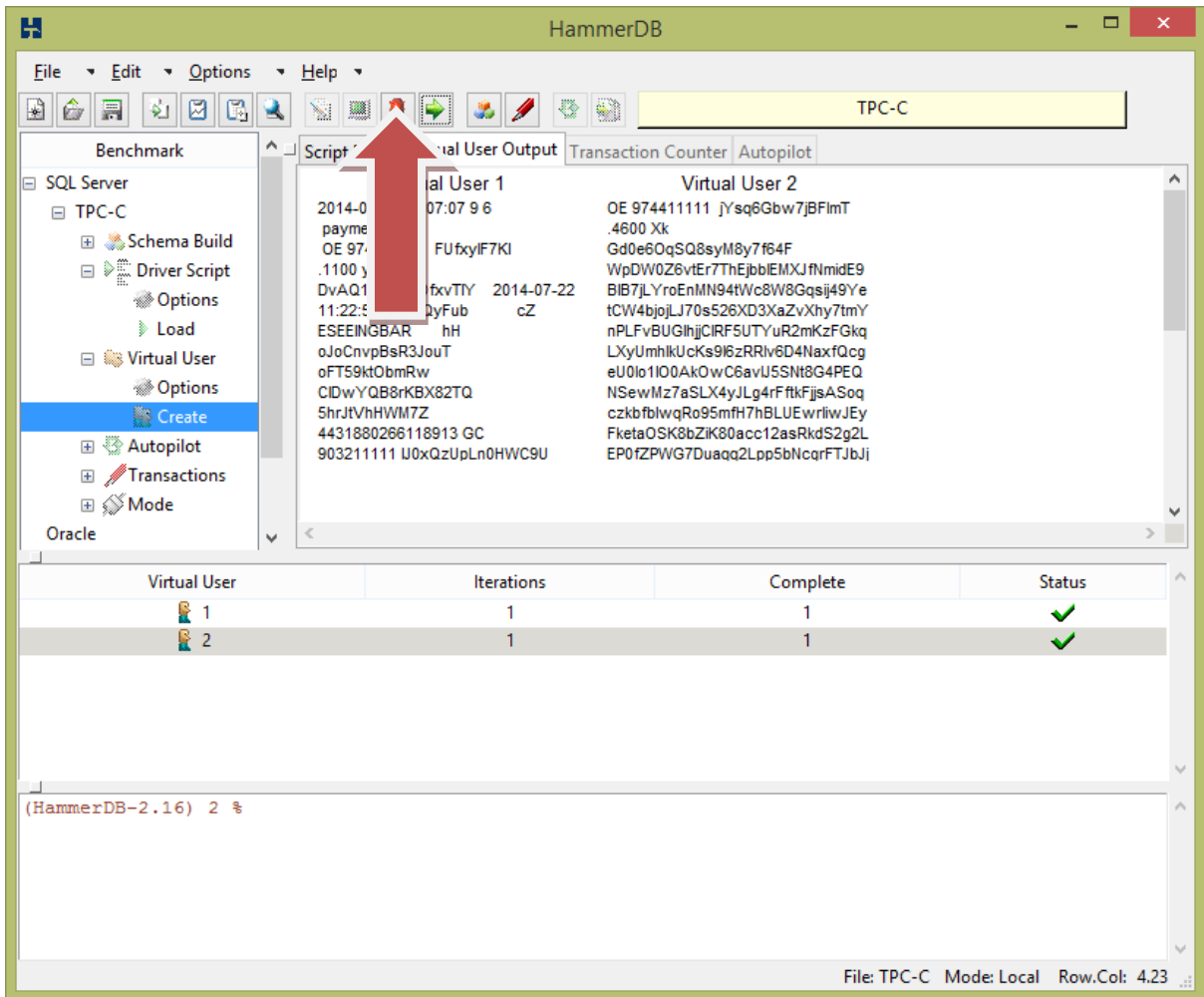


Figure 15 Virtual Users Complete

Next Steps

For next steps such as running timed and automated tests and using the transaction counter as shown in Figure 15 follow the [Introduction to Transactional \(OLTP\) Load Testing for all Databases](#) and [Microsoft SQL Server OLTP Load Testing Guide](#).

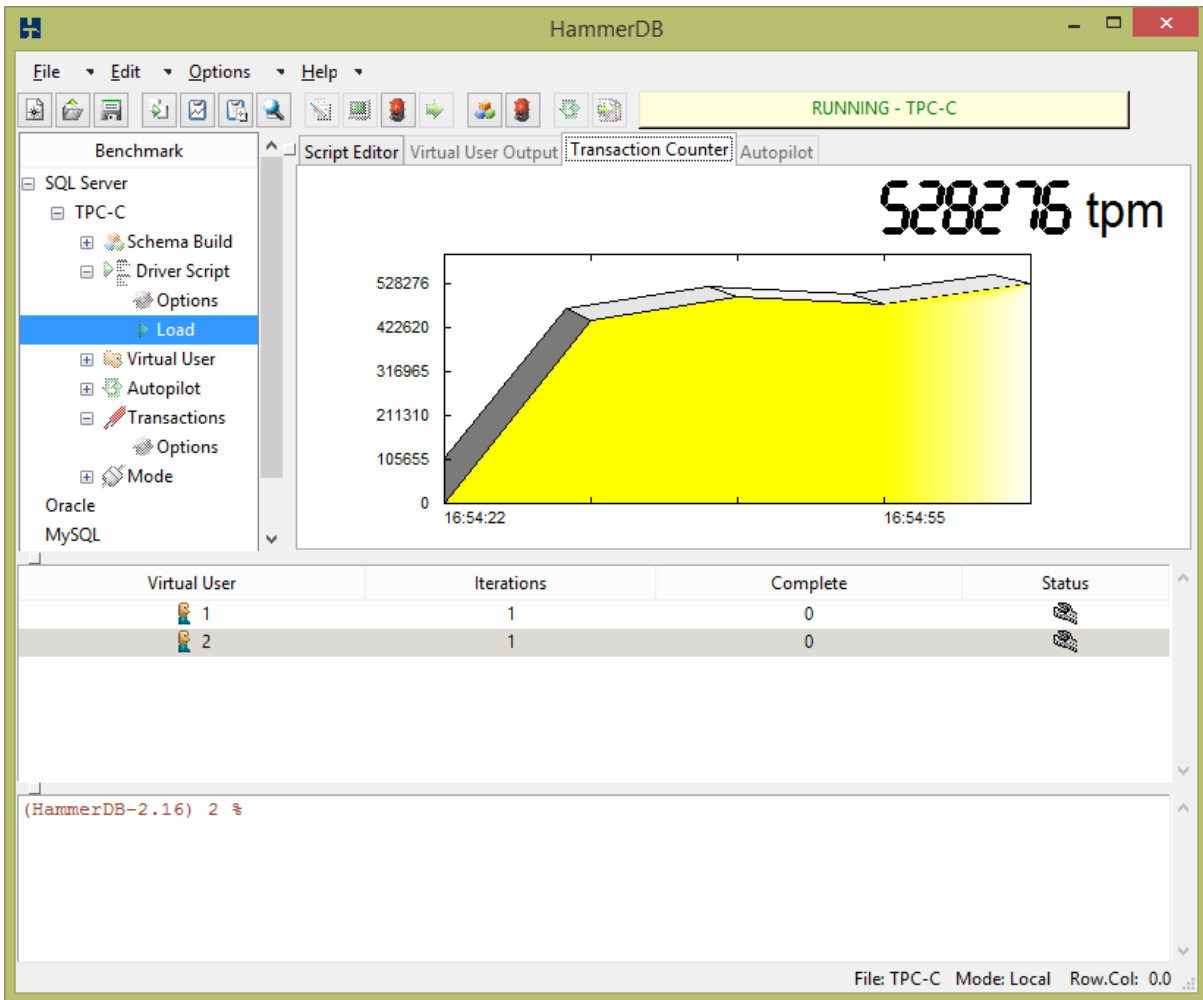


Figure 15 Transaction Counter

Support and Questions

For help use the HammerDB Sourceforge forum available at the HammerDB sourceforge project.