SQL Server Stress Test

Contents

Introduction

This tutorial shows how to perform SQL Server stress test by using the graphical interface. It is also possible to use a command line tool to achieve the same results. Please look at the "*Using the LoadTester.exe command line tool*" tutorial. To create your SQL Server scenario, you can use the SQL scenario creation form or you can directly use the captured SQL Server requests and add them in the SQL loader. You can also use a real SQL Profiler trace file in XML format.

Get started with SQL Scenario creator

1. Launch the PI Engine
2. Click on the SQL Server loader main tab.
3. Click on the *Create* link button located in the bottom left

    Start   Stop   Create   Open   Open Sql Xml Trace   Save

4. This will open the Sql scenario creation form

5. Enter the desired Sql queries in the grid.
6. The icon buttons, from left to right are:
    a. Include all queries in the Sql Server loader
    b. Delete the Sql queries
7. After you finish your scenario, click on the green arrow icon to include your scenario queries in the Sql Server loader:

8. Setup the number of users you want to simulate, the number of scenario replays, the delay between requests and the Sql Server connection string:

    Note that if you do not want to setup those values everytime you launch the engine, you can set them up in the configuration dashboard:

    Click on the "*Add*" link button to setup your connection string. This will open a popup where you can set all the necessary information and test your connection:

2

9. Before you execute the test, you can edit each request by selecting it and then clicking on the "Edit Request" tab. Once you finish the modification you have to click on the save link button.

10. Once everything is setup all you have to do is to click on the "*start*" link button. This will start the stress test. The test progress is displayed in the progress bar. Once the test is finished you get the detailed report:
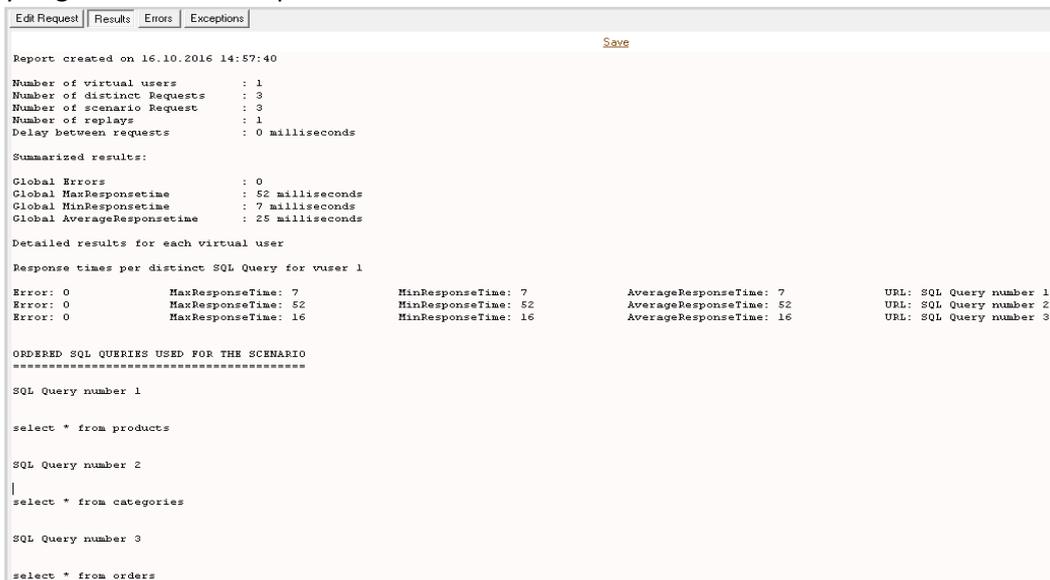

11. You can save the report in text format

12. If the report shows any errors, you can find all the details in the "Errors" and "Exceptions" tabs. The errors tab shows the Sql errors encountered like "invalid object name ...", etc...The exceptions tab show any error encountered by the engine during the test execution

Use SQL Server Profiler Trace file to build your scenario

If you have already captured sql queries with the SQL Profiler, you can use the profiler's trace file to build up your scenario. Make sure you sql profiler trace file is saved in XML format and follow the steps:

1. Launch the PI Engine
2. Click on the SQL Server loader main tab.
3. Click on the *Open Sql Xml Trace* link button located in the bottom left

4. Select your XML trace file. Make sure the SQL Profiler trace file is saved as XML file and not XML file for replay.
5. The SQL queries of the trace file will be displayed in the SQL Server loader
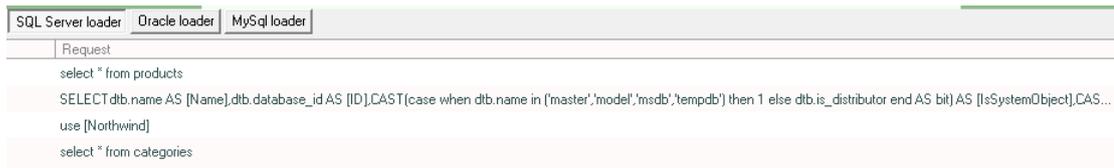
6. Continue the steps as described in the above section starting at point 7.

Warning:

When using a SQL Profiler trace to build your scenario, you have to pay attention on the fact that not all the captured requests are supported. Typically all the login and audit requests. If a request is not supported, an error will displayed in the errors and exceptions tabs once the test is finished.

Use captured requests to build your SQL Server scenario

You can directly select the captured Sql Server requests and add them to the Sql loader. Then you just follow the steps of "*Get started with SQL Scenario creator*" starting at step 7.

To add the selected sql requests into the Sql Server loader, you have to click with the right button and then click on "*Add to Sql loader":*
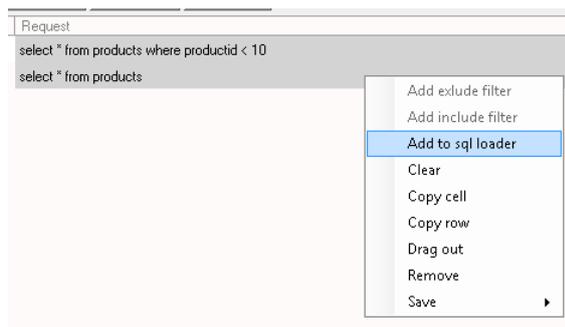
To select multiple requests in the data grid, you simply have to click on the Ctrl key or the Shift key as if it was a regular Windows selection.