

# In-Memory OLTP Simulator

In-Memory OLTP Simulator is a powerful tool that enables you to easily benchmark the powerful In-Memory OLTP Engine of SQL Server 2014® (or later) with different simulations and benchmarks against different workloads. In the Ultimate Edition of the tool, among other, the user can load data from different sources (i.e. using Linked Servers) into the simulator's database and along with the use of custom scenarios, simulate real life scenarios and get in-depth analytics on performance when utilizing In-Memory Optimization and Natively-Compiled Stored Procedures in SQL Server®.

## Simulation Engine

- **Scenario Manager**
  - View available scenarios
  - Six standard scenarios available
  - Change number of records for standard scenarios
  - Create, execute, export and import custom scenarios in Ultimate Edition
  - Template generation for new custom scenarios in Ultimate Edition
- **Benchmark Mode**
  - Run three basic benchmarks with different parameters.
- **Real-Time Resource Monitoring**
  - Monitors CPU and RAM during simulation
  - If certain thresholds are reached, simulation is automatically stopped

## Analytics

- **Simulation Statistics**
  - View statistical information
  - Analysis for multiple runs
  - Multiple calculation options
  - Export Functions
- **Executive Report**
  - Available in the Ultimate Edition
  - Export functions
  - Send report in textual form via email

## Emergency Actions

- Stop Simulation
- Drop Scenario / All Scenarios
- Take Simulator DB Offline
- Bring Simulator DB Online

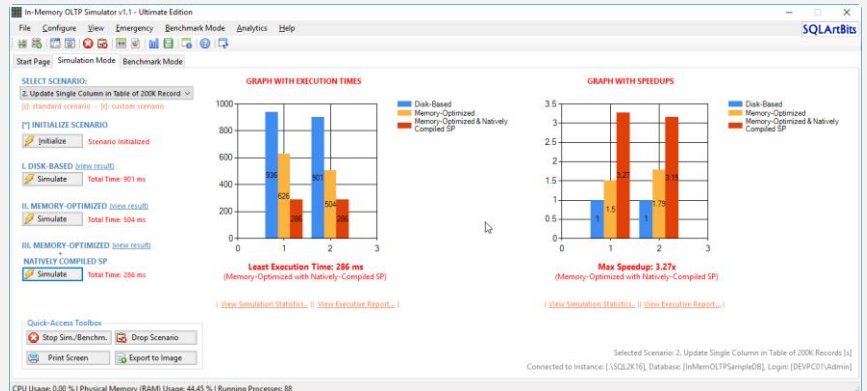


Figure 1: Run Multiple Simulation of the Same Scenario.

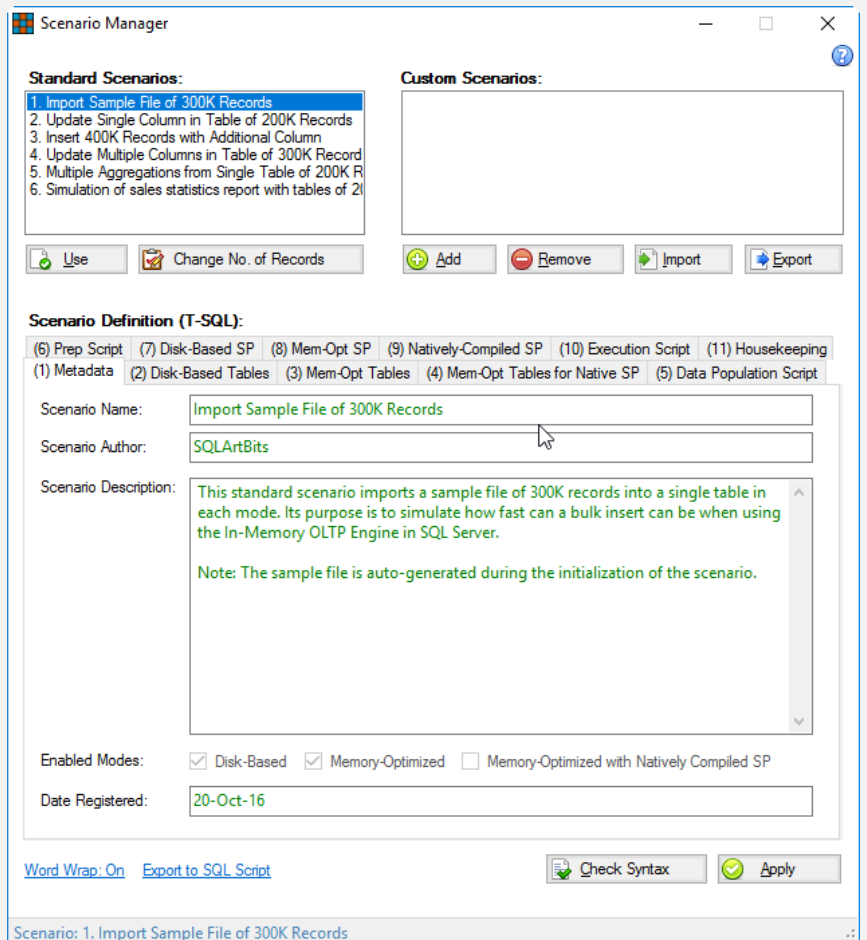


Figure 2: Handle Scenarios in Scenario Manager  
(In the Ultimate Edition You Can Create Custom Scenarios)

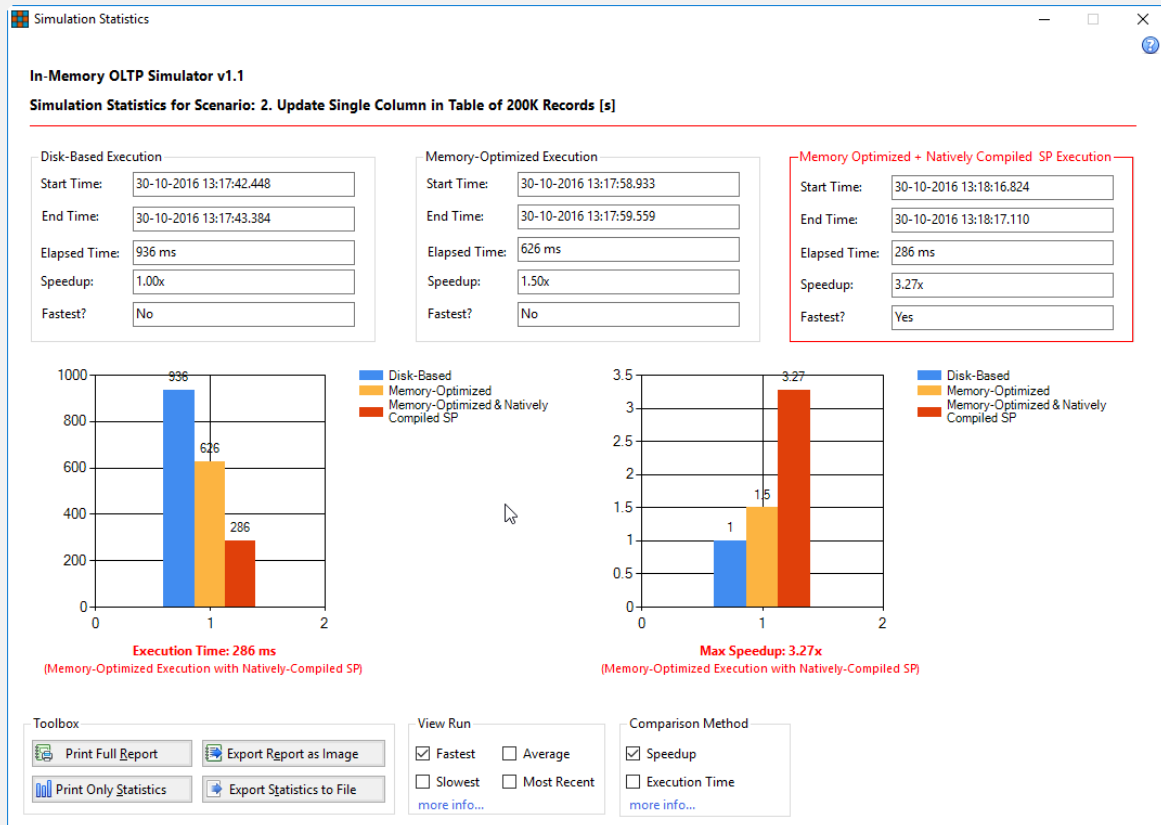


Figure 3: The Simulation Statistics Page.

Features	Ultimate Edition	Community Edition
Run Standard Scenarios	•	•
Benchmark Mode	•	•
View Current Usage Statistics	•	•
Change Number of Records for Standard Scenarios	•	•
View Active Scenario Definition	•	•
View Current Resource Usage	•	•
Stop Simulation	•	•
Drop Scenario	•	•
Drop All Scenarios	•	•
Take Simulator Database Offline	•	•
Bring Simulator Database Online	•	•
Simulation Statistics	•	•
Export Statistics to Text File	•	•
Export Graphs to Image File	•	•
Print Statistics	•	•
View Schema of Tables	•	•
View Result of Simulation	•	•
Set Emergency Thresholds	•	•
Real-Time Resource Monitoring	•	•
Generate and Use Multiple Simulation Databases	•	
Create, Modify and Run Custom Scenarios	•	
Export Custom Scenarios	•	
Import Custom Scenarios	•	
Executive Report	•	
Print Report	•	
Export Report	•	
Send Report in Text Format by Email	•	
Export Scenarios and Benchmarks as DDL Scripts	•	

Table 1: Features Available in the Different Editions of In-Memory OLTP Simulator.