



peakmarks[®]

Benchmark Workshop

Systematic benchmarking of Oracle database platforms using the peakmarks Performance Analyzer.



Audience

This two-day workshop is intended for database administrators, system engineers, system architects and performance specialists who are responsible for efficiency, performance and benchmarking Oracle platforms.

Requirements

Access to customer system or laptops with appropriate equipment for practical exercises (laptop with preinstalled Oracle 12c database, 16+ GB of RAM, 128+ GB capacity for benchmark data or access to customer system via putty and winscp).

Agenda

Part 1 Benchmark methodology

- Complexity of Oracle platforms
- Why TPC, SPEC and SPC figures are not representative for Oracle platforms
- Requirements to Oracle platform benchmark tools

Part 2 peakmarks installation

- Server classification
- Database configuration for benchmarking
- Installation of peakmarks software
- Monitoring of platform
- Practical exercises

Part 3 peakmarks data load

- peakmarks configuration parameter
- Load of benchmark data
- peakmarks data model
- Monitoring the data model
- Practical exercises

Part 4 peakmarks CPU performance tests

- Why CPU performance tests? Oracle license costs
- Key performance metrics to evaluate CPU performance during database operations
- peakmarks CPU performance tests
- Performance optimization and monitoring CPU performance tests
- Specific topics: multithreading, virtualization, Oracle CPU calibration
- Benchmark results with «best-in-class» systems
- Practical exercises

Part 5 peakmarks Server performance tests

- Why server performance tests? Ultimate Oracle performance when using large buffer caches
- Key performance metrics to evaluate server performance during database operations
- peakmarks Server performance tests
- Performance optimization and monitoring server performance tests
- Specific topics: NUMA effects, scalability of multi socket systems, scale-up versus scale-out
- Benchmark results with «best-in-class» systems
- Practical exercises

Part 6 peakmarks Storage performance tests

- Why storage performance tests? True costs of I/O latency
- Key performance metrics to evaluate storage performance during database operations
- peakmarks Storage performance tests
- Performance optimization and monitoring Storage performance tests
- Specific topics: operating system parameters, I/O path configuration, queuing, offloading, deduplication, compression, encryption, replication
- Benchmark results with «best-in-class» systems
- Practical exercises

Part 7 peakmarks data bulk load performance tests

- Why data bulk load performance tests? Capacity planning for Data Warehouse, Big Data and Data Analytics applications
- Key performance metrics to evaluate data bulk load performance
- peakmarks data bulk load performance tests
- Specific topics: load techniques, impact of data guard to load performance, data reduction with deduplication and compression, REDO throughput optimization
- Benchmark results with «best-in-class» systems
- Practical exercises

Part 8 peakmarks data analytics performance tests

- Why data analytics performance tests? Capacity planning for Data Warehouse, Big Data and Data Analytics applications
- Key performance metrics to evaluate data analytics performance
- peakmarks data analytics performance tests
- Specific topics: «column store» versus «row store», offload functions and smart-scan
- Benchmark results with «best-in-class» systems
- Practical exercises



Part 9 peakmarks online transaction processing performance tests

- Why OLTP performance tests? Capacity planning for core banking, ERP, CRM and many other applications
- Key performance metrics to evaluate OLTP performance
- peakmarks OLTP performance tests
- Specific topics: buffer cache configuration, REDO latency optimization, DBWR throughput optimization, impact of Data Guard to local transaction service time
- Benchmark results with «best-in-class» systems
- Practical exercises

About peakmarks Ltd.

peakmarks is the leading provider of benchmark software for Oracle platforms.

Easy to understand and representative performance metrics of Oracle platforms are determined with a unique methodology. These metrics answer questions of quality, efficiency, capacity planning and price / performance ratio of Oracle platforms.

peakmarks runs periodically performance tests for large Oracle OLTP and data warehouse customers and in benchmark centers of the hardware manufactures. peakmarks is vendor independent and has a unique neutral market overview on the performance of infrastructure components and technologies for Oracle platforms.

Speaker



Manfred Drozd completed his studies in computer science in Paderborn (Germany) in 1980 and followed the development of relational database technology from its beginning. In 1984 he was responsible for a Basel pharmaceutical company for the introduction of Oracle Version 3.1.

From 1990 to 2001 Manfred Drozd was an employee of Oracle Corp. Switzerland, ultimately founding and heading the consulting practice *Server Technology & Performance Architecture*. Currently he is working as an independent consultant designing, implementing, benchmarking and optimizing Oracle database platforms. He is a frequent speaker at SOUG (Swiss Oracle User Group), DOAG (Deutsche Oracle Anwendergruppe), Oracle and other vendor events.

Since 1998 Manfred Drozd and his team developed a benchmark methodology for Oracle platforms, which allow to determine the most important performance indicators of a platform and its components in a fast, reliable and transparent manner.

The methods are tried and tested and are used in many large OLTP and DWH systems for quality assurance, capacity planning, evaluation platform but also to optimize Oracle license costs. Even hardware manufacturers apply the methodology to verify the performance of their products in Oracle operational environments.

Costs

The two-day seminar will be conducted at customer site, so that there will be no travel costs for participants.

The cost of the seminar including expenses and comprehensive documentation in electronic form and peakmarks software license is in Switzerland 3'800 CHF. The number of participants is limited to 8.

For other locations, please ask for an offer.

For further information, we are at your disposal.