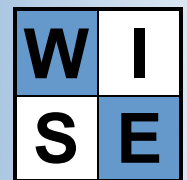


# DB2 UDB for z/OS: DB2 Batch Design for Performance



WISE LTD.

- COURSE CODE:** DZOBDP
- COURSE TITLE:** DB2 Batch Design for Performance
- AUDIENCE:** Application Designers, Application Programmers and Capacity Planners.
- PREREQUISITES:** At least one (1) year of application development experience.
- DURATION:** 2 days
- SUMMARY:** For Developers, this presentation summarises effective batch application design. In the interest of performance and availability, special emphasis will be placed on:
- Efficient SQL
  - Index design in general
  - Clustered indexes in particular
  - Massive update alternatives
  - Checkpoint/restart
  - Parallelism
  - Prefetch (sequential and dynamic)
- OBJECTIVES:** Upon completion of this presentation, the delegate should be able to make use of batch application design guidelines which, when adopted, can improve overall batch program performance on system availability.

## 1. BATCH vs. ONLINE APPLICATION DISTINGUISHED

## 2. POSSIBLE ATTACHMENTS

- TSO
- IMS (BMP)
- DB2 DL/I Batch
- Call Attach Facility (CAF)

## 3. BATCH DESIGN CONSIDERATIONS

- Index look-aside
- Prefetch (sequential and dynamic)
- DFSORT, utilities and files
- How to reduce SQL calls
- When and how to use non-clustered indexes
- Checkpoint/restart
- COMMIT/ROLLBACK
- Massive inserts, updates and deletes
- Partition table spaces and parallelism
- Dynamic SQL vs. Static SQL
- Locking and concurrency
- LOAD vs. INSERT

## 4. INDEX DESIGN

- Concepts and types
- How to choose clustering index
- How to choose partitioning index
- How to use indexes to avoid sorts
- How and when to choose composite indexes
- How and when to choose non-partitioning indexes

## 5. PROCESSOR CONSIDERATIONS

- How to exploit asynchronous processing
- How to exploit parallelism

## 6. OTHER CONSIDERATIONS

- Table space types
- Page sizes
- Number of tables per table space
- When to reorg: table space/index
- When to consider clustered indexes