



- COURSE CODE:** DZOLC2
- COURSE TITLE:** DB2 Locking & Concurrency for DBAs
- ENVIRONMENT:** Non-data sharing
- AUDIENCE:** Database Administrators, System Administrators and Capacity Planners.
- PREREQUISITES:** A thorough understanding of DB2 for z/OS objects: databases, table spaces, tables and indexes.
- DURATION:** 1 day
- SUMMARY:** Especially designed for the DBA, this course focuses on everything the DBA should understand about the internals of DB2 locking in a non-data sharing environment. Equipped with such knowledge, the DBA function should be able to monitor IRLM and tune it so as to maximise concurrency and minimise locking CPU cycles. Among the topics covered are:
- DB2 subsystem options
  - Database design options
  - Application design options
  - Bind/rebind options
  - Claims and drains
  - Monitoring and tuning
- The presentation includes useful and practical recommendations to both online (e.g., CICS) and batch processes.
- OBJECTIVES:** Upon completion of this presentation, the delegate should understand the scope and limits of DB2 locking choices such that locking definition, management, monitoring and tuning is less of a challenge.

### 1. OVERVIEW

- IRLM dispatching
- DB2 serialisation
- Latches
- Transaction locks
- IRLM locks
- Locking flow
- Lock avoidance

### 2. IRLM OPTIONS

- DSNZPARM
- IRLM Startup Proc

### 3. LOCKING MONITORING

- Reports
- Traces
- Accounting
- Statistics
- EXPLAIN
- Commands

### 4. TUNING LOCKS

- ESCA
- IRLMRWT
- NUMLUKS
- NUMLKS
- LOCKMAX
- LOCKSIZE
- DDL (utilities, bind, dynamic SQL, etc.)

### 5. UTILITY LOCKS

- Applications
- Catalog
- Directory (e.g., DBD)

### 6. LOCK PROBLEM ANALYSIS

- Console messages
- Monitoring
- Using DB2 commands
- Using accounting and statistics traces and reports

### 7. CHECKPOINT/RESTART CONSIDERATIONS

- When to consider
- Alternatives