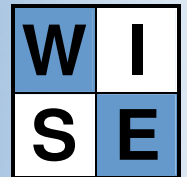
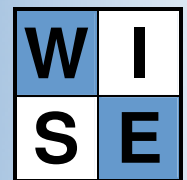


# SQL Server 2005 New Features – DBA's Perspective



WISE LTD.

- COURSE CODE:** SQSCF5
- COURSE TITLE:** SQL Server 2005 New Features – DBA's Perspective
- AUDIENCE:** Database administrators, system administrators and performance and tuning personnel.
- PREREQUISITES:** At least six (6) months SQL Server 7.0 and/or SQL Server 2000 experience.
- DURATION:** 1 day
- SUMMARY:** This presentation provides the SQL Server DBA, and others with similar responsibilities, with a summary of SQL Server 2005 new features and enhancements. Indeed, this course should be a prerequisite to other possible SQL Server 2005 follow-on courses including:
- SQL Server Partitioned Tables and Indexes (SQSPTI)
  - SQL Server Snapshot Isolation (SQSSNA)
  - SQL Server Integration Services (SQSSIS)
  - SSIS Scripting (SQSSCR)
- OBJECTIVES:** Upon completion of this presentation, the delegate should be conversant with the broad usage of SQL Server 2005's new features and concepts.
- FORMAT:** Lecture



### 1. DBA RESPONSIBILITY CHANGES – A GLANCE

- Database mirroring
- Snapshot isolation
- Table and index partitioning
- Integration services
- Security and authentication
- XML
- .NET CLR
- Service Broker

### 2. DATABASE ENGINE ARCHITECTURE

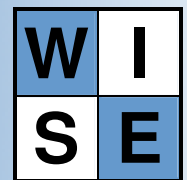
- Operating system
- Non-uniform memory access
- Query optimisation
- Row versioning
- System metadata
- Security
- Storage engine
- I/O architecture

### 3. DATABASE ADMINISTRATION

- SQL Server Management Studio
- SQL Server Configuration Manager
- SQLCMD vs. isql.exe / osql.exe
- DDL triggers and event notification
- Database mail
- API management
- Windows Management Instrumentation (WMI)

### 4. DATABASE ENGINE

- XML data types
- .NET framework integration
- Catalog views
- Row versioning
- Snapshot isolation
- Service broker
- Non-clustered indexes + included columns
- Persisted computed columns
- Partitioned tables/indexes
- Date\_Correlation optimisation
- Auto\_Update\_Statistics\_Async
- Recompile and optimised hints
- Mirrored backups



### 5. T-SQL ENHANCEMENTS

- Common Table Expressions (CTEs)
- Error handling
- TOP and TABLESAMPLE
- Ranking functions
- PIVOT/UNPIVOT
- APPLY operator
- DDL triggers
- Large value data types
- OUTPUT clause
- Statement level recompilations
- Stored procedures in
- Transactions in
- Versioning in
- BULK rowset provider
- Referential integrity

### 6. SECURITY

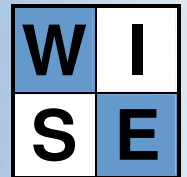
- Password
- Authentication
- User-schema separation

### 7. MONITORING & TUNING

- SQL Profiler
- Tuning Advisor
- Dynamic management objects
- Blocked process threshold

### 8. HIGH AVAILABILITY FEATURES

- Fallover clustering
- DB mirroring and snapshots
- Online index operations
- Instance file initialisation
- Page restoration
- Replication
- Backup/restore media check
- Checksum validation



### **9. BUSINESS INTELLIGENCE (BI) & DATA WAREHOUSING (DW)**

- Business Intelligence Development Studio
- ETL – Extract, Transform and Load
- Table partitioning
- Index partitioning
- Analytic functions
- PIVOT functions
- Analysis services
- Reporting Services
- SQL Server Integration Services (SSIS)

### **10. TOOLS & UTILITIES**

- Management Studio
- Query Editor
- Tuning Advisor
- Configuration Manager
- BI Development Studio
- Notification Services

### **11. SQL SERVER 2005 SAMPLES & SAMPLE DATABASES**

- OLAP
- OLTP
- Code
- Etc.