

## QMF02 QMF For Application Developers

- Course description** This course is intended for those personnel who are already familiar with the basic QMF facilities and who wish to extend that knowledge. The course provides detailed information in developing QMF applications, and administering the QMF environment. The course places specific emphasis to performance)
- Who Should Attend** Programmers, analyst programmers and developers intending to develop and maintain QMF applications or support the QMF environment.
- Pre-Requisites** Existing knowledge of DB2, SQL and basic QMF facilities (Forms, Reports, Procedures etc.) is assumed. A basic understanding of the TSO/ISPF environment is also assumed.

**Duration** 3 Days

### Batch QMF

Why Batch QMF ?  
The Batch QMF Environment  
JCL Requirements  
DSQQMFE & Associated Parameters  
Batch Restrictions

### Canned QMF

Functional Overview  
Hiding QMF  
CLIST & File Requirements  
DSQQMFE & Associated Parameters  
IMPORT / EXPORT  
Parameter Driven Queries & Procedures

### QMF Applications

What Is a QMF Application ?  
The Command Interface (DSQCCI)  
The Run Time Environment  
The RUN Command  
Command Synonyms  
Application Support Commands  
QMF System Variables  
ISPF Variable Pools  
Interface Return Codes  
Passing Parameters

### Access Mechanisms

Access Path Types  
Tablespace Scans  
Matching Index Scan  
Non-Matching Index Scan  
Clustered / Non-Clustered Indexes

Index Only Access  
Multi-Index Access  
Sequential Prefetch  
List Prefetch  
Merge Scan Join  
Nested Loop Join  
Hybrid Join  
Optimize For ...  
Explain

### SQL Optimisation

DB2 Sub-System Components  
Predicate Evaluation  
Stage 1 Predicates  
Stage 2 Predicates  
Indexable Predicates  
Filter Factors  
The DB2 Catalog  
Runstats

### Integrity & Locking

Logging  
Commit / Rollback  
Locking  
Indexes / Types  
Performance Guide-Lines

### Security & Authorisation

The Run-Time Environment  
Secure DB2 Resources  
Authorisation Id's (P/S)  
Grant/Revoke Overview  
With Grant Option  
Public Privileges  
Group Privileges & RACF  
Views  
Special Authorities

Dynamic Object Ownership  
Set Current SQLID  
Static Object Ownership  
QMF Access Control  
The QMF Profile Table

### CLIST Overview

The PROC Statement  
The ALLOC Statement  
The FREE Statement  
The OPENFILE / CLOSEFILE Statements  
The GETFILE / PUTFILE Statements  
ISPEXEC  
Variables  
String Functions

### The QMF Resource Governor

Functional Overview  
QMF Profile & Resource Tables  
Resource Groups  
Resource Control Options  
Resource Administration

### QMF Administration

Command Synonyms  
PF Key Customisation  
The QMF Profiles  
Adding & Removing Users