

MQSeries® Technical Introduction

Course No.	3200
Description	In this course students learn the characteristics and benefits of applications that utilize messaging and queuing with MQSeries®. This includes remote communication, unit of work and security considerations. The course introduces the concepts and techniques for best using MQSeries®. Topics are applicable to the most environments supported by MQSeries®.
Audience	Application Programmers and Analysts interested in understanding MQSeries® role in application communication and distribution.
Prerequisites	Students should have six months of programming experience.
Objectives	<ul style="list-style-type: none">• Understand the difference between synchronous and asynchronous communication• Describe the major responsibilities of the Message Queue Manager (MQM)• Become familiar with how MQSeries® is being used in the industry• Understand what queues and messages are, and how they are used• Understand the Message Queue Interface• Learn MQSeries® Role in Remote Communication, Units of Work and Security• Understand the role of the MQSeries® Administrator
Major Topics	<ul style="list-style-type: none">• Communication Model• Message Queues• Message Queue Manager• MQSeries® in the industry• Message Queue Interface• Uses of Message Queues• Using MQSeries® Structures• Remote Communication• Units of Work• Security• Administrator Responsibilities• Programming Considerations
Duration	2 days



Course Contents

1. Communication Model

- Challenges of Distributed Computing
- Applications
- Communication Models
- What Is MQSeries®?
- Products and Supported Platforms
- MQSeries® Objects
- Messages
- The Five Promises
- Message Queue Interface (MQI)
- Local Communication
- Remote Communication
- Time Independent Processing
- Triggering
- Parallel Processing
- Complexities Hidden

2. Queue Managers and Queues

- Queue Manager Responsibilities
- Security
- Version 1 Queue Managers
- Version 2 Queue Managers
- Version 5 Queue Managers
- MVS Queue Managers
- Clients
- Connecting Queue Managers
- Types of Queues
- Types of Local Queues
- Attributes of All Queue Types
- Attributes for Local & Model, Remote and Alias Queues
- Dynamic Queues

3. The Message Queue Interface

- Objectives
- The Message Queue Interface
- MQCONN
- MQDISC
- Connection Handles
- Local And Remote Queue Managers
- MQOPEN
- MQCLOSE
- Object Handles
- Open Options
- Exclusive vs. Shared Access

- Messages
- MQPUT
- Putting Messages
- MQGET
- Getting Messages
- Data Conversion
- Correlating Messages
- Get With Wait
- Signals
- Browsing Messages
- Retrieving Browsed Messages
- Priority
- Message Expiry
- MQPUT1
- MQPUT vs. MQPUT1
- MQCMIT
- MQBACK
- MQINQ
- MQSET

4. Remote Communication

- Objectives
- Remote Queues
- Transmission Queues
- Queue Resolution
- Transmission Queue Resolution
- Resolution Example
- Channels
- Channel Types
- Segregating Messages
- Crossing Multiple Queue Managers
- Channel Exits

5. Unit of Work

- Objectives
- Units of Work
- MQPUT and MQGET with Syncpoint
- Single-Phase Commit
- Transaction Managers
- Distributed Units of Work
- Simulating Units of Work

6. MQSeries® Security

- Objectives



- Security Goals
- Security Services
- MQSeries Security
- Access Control
- Message Context
- Passing Context
- Passing Options
- Passing Context
- Message Channel Exits

7. MQSeries® Administration

- Objectives
- Platforms
- MQSeries Commands
- PCF Messages
- CL Commands
- Instrumentation Events
- Logging

- MVS/ESA Administration
- OS/400 Administration
- OS/2, UNIX and Windows NT Administration
- Level 1 Administration

8. MQSeries® Programming

- Objectives
- Asynchronous Communications
- Assembling Messages
- Synchronous Communications
- Modeling Client/Server
- Reports
- Sending Messages Remotely
- Persistent Messages
- MQSeries®?

