

## IMS03 IMS/ESA Concepts & Facilities

**Course Description** This course provides students with an overview of the IMS/ESA system in both batch and online environments. The course contains quite similar material to IMS01 and IMS02, but the subject matter is discussed at a higher level and is therefore less detailed. In most parts the course is language non-specific in order to cater for programmers and non-programmers alike.

**Who Should Attend** Students should be anyone within the I.T environment who requires a functional overview of IMS/ESA. Students should not have attended IMS01 or IMS02.

**Pre-Requisites** No previous IMS/ESA knowledge is required, but students should be familiar with the TSO/ISPF development environment.

**Duration** 5 Days

### The Information Management System

Overview of IMS/ESA  
Databases vs Flat Files  
IMS Objectives & Benefits

### Hierarchical Concepts

Segment Types  
Levels  
Occurrences & Twins  
Key & Sequence Fields  
Hierarchical Sequence  
Hierarchical Paths

### IMS/DB Control Blocks

DBD, PSB, PCB, ACB  
The PCB Mask(s)

### Segment Search Arguments

Unqualified SSA's  
Qualified SSA's

### DL/1 Calls

Get Calls (GU, GN, GNP)  
Current Database Position  
Setting Parentage  
Get Hold Calls  
Update Calls

### Application Development Lifecycle

Control Block Generation  
VSAM Dataset Definition  
Database Load  
Executing A DL/1  
JCL Requirements

### Full Function Access Methods

HSAM  
HISAM  
HIDAM  
HDAM

### Additional Database Features

Database Re-Org  
Secondary Indexes  
Logical Relationships

### IMS/DC(TM) Overview

DL/1 review  
IMS/DC(TM) Overview  
On-Line VS. Batch

### The IMS/DC(TM) On-Line Environment

The Control Region  
Dependent Regions  
Messages / Transactions  
The Message Queue(s)  
Lterms / Pterms  
Program Scheduling System / Transaction Flow  
Sys Gen Overview

### On-Line Programs

MPP, IFP, BMP  
PCB's - I/O, D/B, Alternate  
Receiving Messages  
Replying To Messages  
The Expedited Message Handler  
Transaction Response Mode  
WFI Transactions

### Message Format Services

MFS Functional Overview  
Transaction Flow Using MFS  
MFS Control Blocks  
MID, MOD, DIF, DOF)

### Batch Terminal Simulator Overview

BTS Functional Overview  
Development Benefits  
BTS Commands  
File Requirements

### IMS/DC(TM) Integrity Overview

Locking  
Logging  
Checkpoint  
RollBack

### Conversational Processing

Conversational Transactions Overview  
Scratch Pad Area Processing

### Fast Path Access Methods

MSDB's  
DEDB's  
DEDB Subset  
Pointers/Command Codes  
Access Method Compatibility

### DFSDDLTO

Functional Overview  
JCL Requirements  
Basic Control Statements