

CICS WEB SERVICES

COURSE CURRICULUM

4

MODULES

18 hrs

TOTAL INSTRUCTION

EVILT

DELIVERY METHOD

CICS COBOL
programming

PREREQUISITES

CICS WEB SERVICES CURRICULUM

MODULES 1 – 4

MODULE

1

Channels & Containers – Concepts

- Introduction to Channels and Containers
- Why they were introduced to overcome 32 KB COMMAREA limits and coupling issues
- Channel & Container object model
- BIT vs CHAR types
- Channel scope and lifetime
- COMMAREA vs Channels and version compatibility
- Key EXEC CICS commands

MODULE

2

Programming with Channels – GET/PUT Container

- Writing COBOL CICS programs to create, populate and read Containers
- PUT CONTAINER with FLENGTH and CHAR/BIT
- GET CONTAINER
- GET CONTAINER with SET for dynamic-length discovery
- DELETE CONTAINER
- QUERY CHANNEL and MOVE CONTAINER operations

MODULE

3

Inter-Program Communication via Channels

- Using EXEC CICS LINK and XCTL to pass Channels between programs
- LINK with CHANNEL and return control
- XCTL with CHANNEL
- START with CHANNEL for deferred asynchronous task initiation
- Child Channel inheritance and data isolation
- Migration from COMMAREA using wrapper/adaptor patterns

MODULE

4

Designing CICS Programs as Reusable Services

- Channel contract design including container names, types and error semantics
- Reusable service-program structure
- Single entry point and pure transformation
- Channel interface versioning
- JSON & XML data in Containers
- COBOL 2002 parsing
- Unit testing CICS service programs using z/OS Unit Test & CICS Explorer

COURSE DETAILS

Course Overview

- Introduces CICS Channels and Containers as a modern inter-program communication model that replaces the limitations of the 32 KB COMMAREA
- Covers the creation, population, reading, updating and deletion of Containers and Channels using EXEC CICS commands
- Explores how Channels can be used for inter-program communication, reusable CICS services and migration from COMMAREA-based applications
- Covers JSON/XML data in Containers and integration patterns using z/OS Connect EE

Course Activities

- Hands-on exercises creating, populating, reading and deleting CICS Containers using PUT CONTAINER, GET CONTAINER, GET CONTAINER SET and DELETE CONTAINER
- Practical programming exercises using EXEC CICS LINK, XCTL and START with CHANNEL for inter-program communication
- Design and implementation exercises covering Channel contracts, service-program structures, versioning and reusable CICS services
- Practical exercises involving JSON/XML data in Containers, COBOL 2002 parsing and unit testing using z/OS Unit Test & CICS Explorer

Target Audience

1. COBOL/CICS Developers working on IBM z/OS Mainframe environments
2. CICS Programmers involved in application development and modernization
3. z/OS Architects designing modern CICS application and communication patterns
4. Mainframe Modernization Professionals migrating existing COMMAREA-based applications or implementing service-oriented architectures

Delivery Method

Ez-Learn Virtual Instructor Led Training (EVILT)

Course Duration

18 hrs

Prerequisites

- Writing CICS COBOL programs, including EXEC CICS READ, WRITE, LINK, XCTL, SEND and RECEIVE
- Knowledge of CICS resource definitions, such as TCT, FCT, PCT/PPT or their CEDA equivalents
- Familiarity with CICS COMMAREA-based program-to-program linking
- Basic z/OS file-system, JCL and Unix shell familiarity

Recommended Training

One - One
A Batch of People