# Parallel Sysplex Concepts & Facilities Training

Duration: **2 Day**

BILGINÇ IT Academy
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This course is the essential technical introduction to the IBM parallel sysplex for all managers and technicians coming new to the environment. The course describes and explains the components of the parallel sysplex concept, and covers data sharing, installation, IPL, components & services and sysplex exploitation.<br>The course is regularly revised and upgraded to reflect the changes and advances in the z/OS environment.<br><br>This course is also available for one-company, on-site presentations and for live presentation over the Internet, via the Virtual Classroom Environment service.

## Prerequisites

Familiarity with z/OS structure, concepts, operations and workload.

## What You Will Learn

- explain the reasons for the introduction of the parallel sysplex concept
- explain the business implications of the parallel sysplex
- describe the XCF function for connecting the systems
- explain how data sharing works
- describe the management of a sysplex
- explain how to exploit the benefits of the parallel sysplex.

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## Training Outline

### Sysplex Introduction

What is sysplex?; Not a new concept; So what's new?; 'Before' and 'after' sysplex; XCF sysplex requirements; Components of the XCF sysplex; Server Time Protocol; Clock synchronization techniques; XCF sysplex definitions; XCF sysplex services; The parallel sysplex; The parallel sysplex concept; Signalling and Status Monitoring services; Group services; Couple Data Sets; XES availability with SFM.

### Data Sharing

The Coupling Facility (CF); What parallel sysplex adds to the picture; Cross-system Extended Services (XES); Different types of multi-system data sharing; Parallel sysplex data sharing; The PLEXCFG parameter; Program-to-program communication with parallel sysplex.

### Sysplex Installation & IPL

Sysplex installation planning; Determine system names; Examples of setting system names; Determine overall sysplex configuration; The sysplex name; Couple Data Sets; The sysplex Couple Data Set; The parallel sysplex Couple Data Sets; Example of the formatting utility; Output from the formatting utility; Alternate Couple Data Sets; Sysplex Couple Data Set considerations; Determine detection intervals; Determine transport classes; Transport class attributes; Determine signalling paths; LOCAL sysplex messages; Sysplex group names and members; The CFRM policy; CFRM policy definition; Planning CFRM - identification and structure size; XES Structure Services; XES Structure Services; XES Assembler macros; Selecting a CF for a structure; Updating CFRM; The SFM policy; XCFPOLxx for PR/SM; CLOCKxx.

### Exploiting Sysplex

Parallel sysplex exploiters; Old functions, new techniques - system software & database systems; The 'real' parallel sysplex...?; Workload distribution - not a new concept; Workload distribution - exploiters; WLM and dynamic networking; VSAM Record Level Sharing (RLS); RACF and sysplex; Sysplex-wide DAE; MVS System Console Processing (MCS); Defining MCS consoles; MCS message processing - sysplex; MCS message processing - sysplex; Automatic Tape Switching (ATS); Global Resource Serialization (GRS); GRS Fully Connected Complex and sysplex; GRS star; GRS star setup definitions; Star configuration RNL management; Sysplex-related JES features; The JESXCF facility; Communication via JESXCF; VTAM exploitation; Generic Resources requirements; CICS exploitation; TSO generic resources; Batch in a parallel sysplex with WLM; The solution - WLM managed batch; What WMB does not do... ; What WMB manages; DB2 exploitation; IMS exploitation; TSO/E and SYS1.BRODCAST; MVS System Logger; System Logger overview.

### Sysplex Management & Operations

Parallel Sysplex initialisation problems; Sysplex operational problems; Sysplex Timer problems; Couple Data Set problems; Abend X'00C'; Loss of a system in a sysplex; Planning for sysplex failures; XES availability with SFM; The SFM policy; SFM policy parameters; Creating an SFM policy; Automatic Restart Manager (ARM); Automatic Restart Manager objectives; IPL of a sysplex; The SETXCF command; SETXCF command examples; The VARY XCF command.