Arrow ECS Finland Oy - Education Services

# TRAINING OFFERING

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# Basic z/OS Tuning Using the Workload Manager

| CODE: | LENGTH: | PRICE: |
|---|---|---|
| ES54G | 36 Hours (4.5 days) | €3,900.00 |

## Description

Do you need to know how to establish a practical performance management program for your z/OS system? This course is designed for new performance analysts to learn to work with the Workload Manager (WLM) in goal mode. Learn concepts of WLM and performance management in the z/OS system using the WLM.
Learn how to analyze Resource Monitoring Facility (RMF) reports and implement service definitions using the WLM Interactive System Productivity Facility (ISPF) application. The course uses z/OS hands-on lab exercises to reinforce the concepts and techniques discussed in lecture.
**Hands-on labs**
This course includes hands-on lab exercises. Each student team, working on their own z/OS system, will configure RMF, analyze RMF reports to find bottlenecks, and utilize the WLM dialogs to create goals and classification rules in a service definition that manages a supplied z/OS workload.

## Objectives

- Describe a performance and tuning methodology
- Develop a systematic z/OS performance and tuning plan
- Describe the factors which could affect the performance of an z/OS system
- Use the WLM ISPF application
- Describe the components of a service definition
- Define workloads and service levels and classification rules
- State which z/OS commands affect WLM operation
- Identify the major WLM services for z/OS, including enclaves and application environments, and how they are used by DB2, WebSphere, and CICS
- Analyze CPU performance when running in a shared LPAR environment
- Utilize and monitor zIIP and zAAP specialty engines
- Measure and tune z/OS DASD, processor storage, and coupling facility configurations
- Explain the functions and facilities of RMF and SMF
- Analyze performance bottlenecks using RMF
- Use Workload License Charges (WLC), defined capacity and soft capping to manage software costs
- Describe advanced z/OS environments that utilize Intelligent Resource Director (IRD), HiperDispatch, z/OSMF Workload Management, and I/O Priority Manager
- Use the z/OSMF Workload Management (WLM) task
    - Use Performance Monitoring with z/OSMF
    - Modify a WLM service definition to meet the requirements for monitoring a specific system workload
    - Create and customize Monitoring Desktops
    - Review any issues by using the Monitoring Desktops options displays
    - Assess the performance of the workloads running on the z/OS

## Audience

This is an intermediate course for z/OS system programmers, z/OS performance analysts, and z/OS performance administrators new to performance management for their z/OS system.
**Note:** ES54 is intended for individuals new to WLM and the z/OS performance area

## Prerequisites

You should:

- Understand basic MVS **and** z/OS operation, such as job flow through JES, job scheduling paging, swapping, dispatching controls, and I/O scheduling
- Have a basic knowledge of the purpose of the Workload Manager's function in managing system workloads
- Be familiar with using TSO **and** ISPF to manage data sets **and** run batch jobs

## Programme

**Day 1**

- Welcome
- Unit 1 - Tuning methodology
- Unit 2 - Using SMF and RMF to monitor performance
- Lab 1 - Introduction to your system
- Lab 2 - Using RMF Monitor I and Monitor II

**Day 2**

- Unit 3 - Performance impacts when running in a shared LPAR environment
- Unit 4 - Basic system workload management (part 1)
- Lab 3 - Implementing a WLM environment on z/OS (part 1)

**Day 3**

- Unit 4 - Basic system workload management (part 2)
- Lab 3 - Implementing a WLM environment on z/OS (part 2)

**Day 4**

- Unit 5 - WLM commands, internals, and service
- Lab 4 - Using RMF Monitor III to solve performance problems

**Day 5**

- Unit 6 - z/OS DASD performance topics
- Unit 7 - Tuning processor storage
- Unit 8 - Miscellaneous performance topics
- Lab 5 - z/OSMF and performance management

## Session Dates

Aikataulutamme kiinnostuksen mukaan. Ota yhteyttä

## Additional Information

This training is also available as onsite training. Please contact us to find out more.