# WUVN

### **Enterprise Computing Solutions - Education Services**

## **TRAINING OFFERING**

You can reach us at:

Arrow ECS, Nidderdale House, Beckwith Knowle, Harrogate, HG3 1SA

Email: education.ecs.baltic@arrow.com Phone: 0870 251 1000



CODE:	LENGTH:	PRICE:

ZL1\_ES54 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**

On request. Please Contact Us

#### **Additional Information**

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