
Scott Chapman's Essential z/OS Performance Tuning Workshop

A 4-Day Virtual Workshop

An online experience of learning and doing!

Visit www.epstrategies.com for class schedule and pricing.

A Week of Reviewing Your Own Data!

Prior to class we instruct you on what data to bring to class **from your own systems**. Then, during class, you will also be spending a week doing a basic system performance basic Health Check® using the data you supplied. So, if you have not done a basic Health Check® in a while, or have some performance nagging questions, this is a perfect opportunity for combined instruction, time doing analysis, and an opportunity to get input and recommendations from experts in z/OS performance – Scott Chapman & Peter Enrico!

Workshop Highlights

- z/OS Systems & Performance
 - Metrics & Techniques
 - Measuring
 - Analysis
 - Tuning
 - Z Processors
 - Memory
 - I/O
- WLM Overview
- z/OS software pricing and its relationship to performance and capacity



Class Participation

During this class you will analyze your own data from your own environment.

Prior to class, you will be requested to send us various performance measurements and data. The EPS team will prepare your data to help ensure your active analysis during the entire week of the class. Because this is a virtual workshop, the instructor(s) will only be available for one-on-one discussion after class. This class is a productive week of doing as well as learning.

Performance measurements, analysis, and tuning considerations are discussed throughout. A key strength of this workshop is that the instructor(s) do not just teach tuning recommendations, but why each recommendation exists. Class materials have extensive notes for later reference.

Workshop Dates and Location and Prices

This workshop will be held online through Zoom. For dates and prices, please visit www.epstrategies.com for details or email Jamie.Novotny@epstrategies.com.

Instructor: Scott Chapman

Scott Chapman has over three decades of diverse experience in mainframe performance and capacity, having been an application developer, application performance analyst, system programmer and capacity planner. Having taught this class for multiple years, Scott brings a great deal of information to provide students with a solid foundation in z/OS performance. Scott is our CIO at EPS and co-designer of Pivotor®, our z/OS performance reporting software.

Contact Scott: Scott.Chapman@epstrategies.com

This workshop is constantly being updated with the latest IBM announcements and the latest performance tuning and management techniques.



For More Information...

For more information on this or other workshops, including prices, please contact:

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www.pivotor.com

Please do not hesitate to call if you would like more information or details on this workshop.

In-house instruction

All workshops are available for private instruction for groups of 5 or more interested students. Please contact us for more information.



Workshop Outline

The following is an outline of subjects for this workshop. Since the workshop is constantly being updated, actual workshop content and flow may vary slightly from this outline. **Remember, throughout the class you will be actively analyzing your own z/OS systems and measurements.**

Mainframe Fundamentals Overview

Mainframe Hardware Overview

- Machine Nomenclature and Design
- CPU Types
- Connectivity

Mainframe Software Environment

- System Software Performance Overview
- Performance Complaint Checklist

Software Pricing

- Why Software Pricing Impacts Performance
- Pricing Models
- MLC Details
- Understand Rolling 4 Hour Average
- Understanding Tailored Fit Pricing

Measurements Overview

- Different types of Measurements
- Interval Recommendations
- Analyzing and Visualizing Data

Sharing Processors Under PR/SM

- LPAR Weights
- HiperDispatch
- LPAR Capping
- PR/SM Dispatching

Sysplex Configurations

- Sysplex Terminology and Topologies
- Coupling Links
- Sharing CF Engines
- Sysplex Performance Metrics

Processor Design

- Evolution and Design of Mainframe Processors
- Sub-capacity models
- Processor Cache Details and Measurements

CPU Measurements

- CPU Time, SU/sec, MIPS, MSUs
- Conversion between measurements



- Capture Ratio
- zIIP Usage and Crossover
- LPAR & MVS Busy

Memory

- Page Size & Dynamic Address Translation
- Memory Utilization
- Storage Class Memory / Virtual Flash Express

SMT

- Measurements
- Recommendations

WLM Introduction

- Terminology
- Understanding Goals
- WLM Algorithms
- WLM & DDF Considerations

Performing a WLM Cursory Review

- Policy Structure Review
- Work by Importance
- Evaluating PIs
- Evaluating Goals
- Promotion

Limiting Performance

- LPAR Limits
- Resource Groups
- Latent & Induced Demand
- Work Units
- Delay Samples

I/O Details and Measurements

- Life of an I/O
- I/O Measurements
- I/O Reduction

Additional topics that may be covered based on time and interest

This is a dynamic workshop, not just a series of fixed lectures. Our discussions are important and interesting but are variable, meaning the timing for every workshop is different. The following sections are covered based on time available as well as the participants' interests.

Encryption

- CPACF vs. Crypto Cards
- Crypto Card Modes



Compression

- z/OS Compression Services
- Compression Use cases
- zEDC

Long Term Reporting

- Use of Statistics and Long-term Trending
- Business Metrics

Planning for an Upgrade

- Laying Groundwork
- Determine Upgrade Reason
- Finding Upgrade Options
- Evaluating Options
- Identifying Hazards
- Evaluate Success

