PerfTechPro for z/OS
An Effective, Affordable & Intelligent Capacity Management Solution

PerfTechPro for z/OS Introduction: A Modern Performance & Capacity Management Tool

Historically, Capacity Planning for the zSeries Mainframe server has been largely based on historical CPU usage data (E.g. SMF Type 7n – RMF/CMF Records) and IBM Large System Performance Reference (LSPR) ratios. LSPR ratios represent a simulated assessment of relative processor capacity in an unconstrained environment for the specific benchmark workloads and system control programs. Based upon this historical customer usage data, workload simulation characteristics, and capacity requirement forecasts, these metrics could then be used as input into the IBM Processor Capacity Reference (zPCR) tool, to determine the exact model and associated resource configuration options. The fundamental building blocks of this tried and tested methodology still remain, but time has moved on, and so maybe this methodology can be evolved…

With the introduction of the z10 server, a new function CPU MF (CPU Measurement Facility) was incorporated. CPU MF provides optional hardware assisted collections of information about logical CPU activity executed over a specified interval in selected Logical Partitions (LPARs). The CPU MF counters function is intended to be run on a constant basis to collect long-term performance data (I.E. SMF Record 113), in a similar manner to how you collect other CPU performance data. This new performance data source provides an insight into the actual CPU performance of the actual customer environment, thus refining the accuracy of capacity planning activities when compared with LSPR data.

The actual process of Capacity Planning for the IBM zSeries Mainframe could also be refined, streamlining the periodic (E.g. Daily, Weekly, Monthly, et al) data collection and subsequent analysis process. Of course, the starting point for data is always the RMF/CMF data (SMF Type 7n), but perhaps a non-proprietary Performance Data Base (PDB), containing all pertinent data for CPU analysis, including SMF 113, could optimize this process?
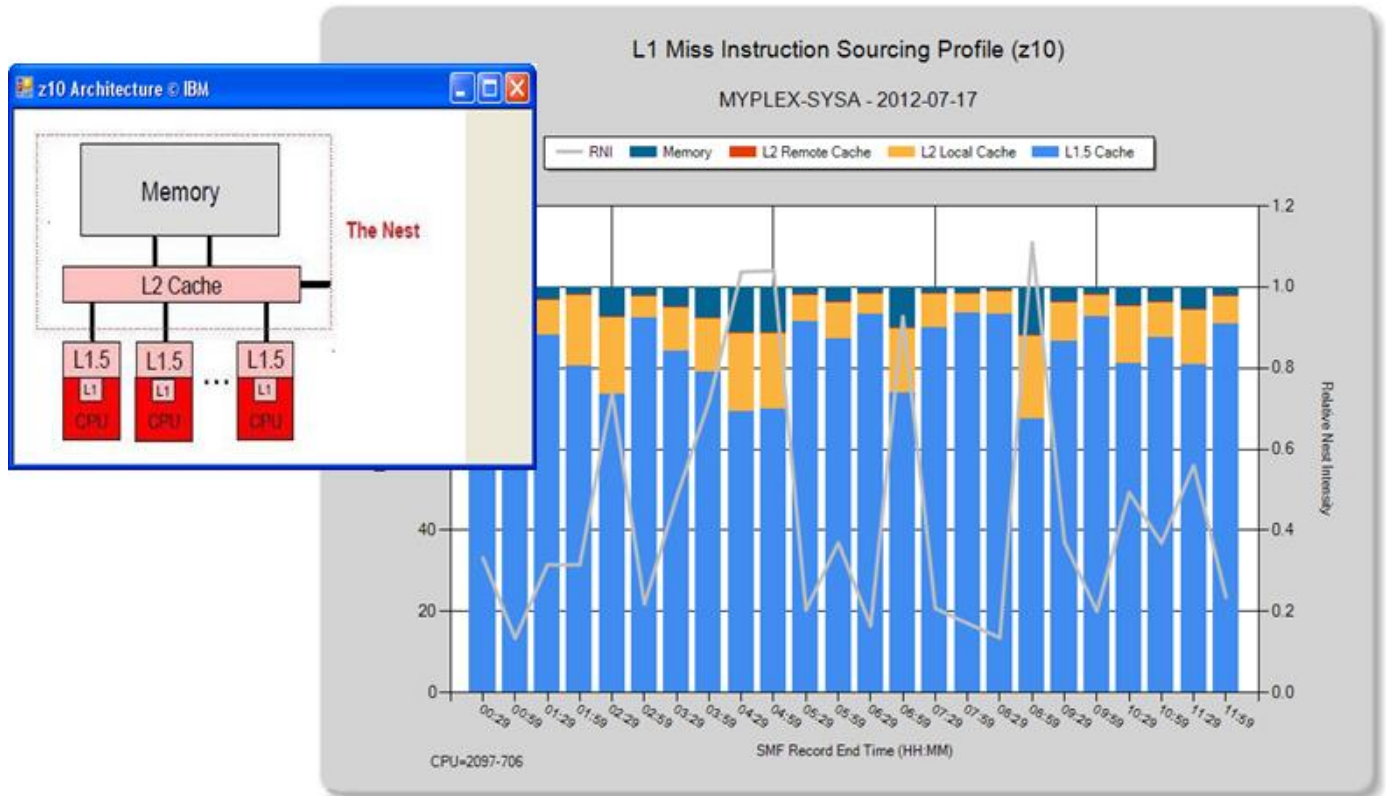
PerfTechPro for z/OS Functions

PerfTechPro for z/OS is a Capacity Planning and Performance Measurement tool specifically designed for the cost conscious and savvy 21st Century data centre. PerfTechPro provides sophisticated capacity and performance management capabilities, affordable by any sized data centre:

- ❖ Clean, intuitive, easy-to-use interface and graphical representations, for example:
  - ➢ Consolidated instance lists guide users to make informed selections
  - ➢ Descriptive dialog boxes detail your configuration
  - ➢ Anticipates, pre-loads data to speed retrieval, reporting and analysis
- ❖ Automated data management
- ❖ Forecasting and modelling
- ❖ Non-proprietary database, enabling data use outside of PerfTechPro
- ❖ Capable of automated collection, analysis and reporting of SMF 113 records produced by the IBM CPU Measurement Facility (CPU MF)
- ❖ Supports measurement, management of zAAP & zIIP Specialty Engines
- ❖ Automated analysis and management of all key capacity and performance metrics, for example:
  - ➢ GPP Utilization of All LPARs
  - ➢ MIPS Usage by CPU
  - ➢ DASD Response Times
  - ➢ Address Spaces Dispatched & Waiting

A fundamental requirement for any Capacity Planning and Performance Measurement solution is intelligent representation of meaningful information from ever increasing amounts of data. PerfTechPro for z/OS deploys a simple host data extraction process to create a non-proprietary Performance Data Base (PDB), which is then made available to a Windows Based GUI front-end, providing the platform for in-built and custom report generation, for example:

Instruction Sourcing Profile – CPU Level 1 Cache Misses (CPU Measurement Facility SMF 113 Records)

PerfTechPro for z/OS Benefits

PerfTechPro for z/OS is a simple-to-use and cost-efficient solution, allowing customers to quickly save time and money from their Capacity Planning and Performance Measurement solution. Ultimately the bottom line objective for PerfTechPro for z/OS is to provide a best-of-breed solution for a very competitive cost. PerfTechPro for z/OS delivers business value by:

➢ Ensuring enterprise zSeries Mainframe server resources are being used efficiently
➢ Maximizing opportunities for cost-savings
➢ Anticipating & responding to increased demand on resources
➢ Reducing costs by exploiting periods of lower resource demand
➢ Discerning underlying causes of performance and capacity issues
➢ Eliminating time-consuming manual tracking, recording and analysis
➢ Implementing disciplined management of valuable business resources

PerfTechPro: The Difference

PerfTechPro are focussed on delivering products to their customer base that make their work easier and more effective, designing PerfTechPro to be as flexible and easy-to-use as possible. For example, with PerfTechPro, you're not limited to a proprietary, or even a single database for performance data retention. PerfTechPro enables the use of any platform or any relational database (E.g. Microsoft Access, SQL Server, MySQL, Oracle).

PerfTechPro is also designed to support a wide breadth of performance data sources (E.g. SMF, RMF, CICS, DB2, CPU Measurement Facility), while also providing conversion capabilities for historic CPU usage data stored in other performance databases.

This focus on usability and flexibility makes PerfTechPro an exceptional tool for Capacity Planning and Performance Measurement activities (I.E. CPU Sizing, Forecasting, Modelling, Correlation Analysis).

PerfTechPro for z/OS: Customer Workload Analysis Option

By analysing a small subset (E.g. 24 Hours) of your business specific SMF data (E.g. Type 70, 71, 72, 73, 75 & 113 records), upon request, we can create a set of PerfTechPro for z/OS reports representing your business, which can be used for an iterative discussion process via a Web Conference, as and if required.

For more information please visit the [PerfTechPro-z/OS Portal](), Email our [Sales Team]() or call us on +44 (0) 845 0579386.

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