



zPCR

Processor Capacity Reference for IBM Z and IBM LinuxONE

zPCR is a PC-based productivity tool under Windows, designed to provide capacity planning insight for IBM Z processors running various z/OS, z/VM, z/VSE, KVM, Linux, SSC, and CFCC workload environments on partitioned hardware. Capacity results are based on IBM's most recently published **LSPR** data for z/OS.

Capacity is presented relative to a user-selected Reference-CPU, which may be assigned any capacity scaling-factor and metric. Function in **zPCR** includes:

1. **LSPR Processor Capacity Tables:** Displays processor capacity ratios for 5 workload environments. Processor families and workloads displayed are user controlled. Capacity tables provided are:
 - **Multi-image (IBM Z and LinuxONE):** Each processor assumes a partition configuration considered typical for the size and N-way of the model. Capacity for General Purpose models or IFL models may be displayed. The multi-image table assumes that every partition is running the same workload. The **LinuxONE** table is limited to IFL models.
 - **Single-image (IBM Z):** Each processor assumes a single partition with all CPs assigned, up to a reasonable maximum of 30. Capacity for General Purpose models or IFL models may be displayed.
2. **LPAR Configuration Capacity Planning:** For the LPAR host specified, any legitimate partition configuration can be defined. The LPAR host processor can be configured with General Purpose CPs, zAAPs, zIIPs, IFLs, and ICFs where valid. Partitions are then defined, specifying type (General Purpose, IFL, or ICF), SCP/workload, and LP configuration (dedicated or shared with number of logical CPs), and weight/capping assignments. zAAP and zIIP logical CPs are always associated with a z/OS partition. Capacity projections are generated for each partition as well as the LPAR host as a whole. Partition configurations can be created directly from z/OS RMF data, EDF data (derived from SMF), or from previously saved zPCR studies. Absolute capping is supported for zEC12, zBC12, z13s, and z13 processors. SMT (Symmetrical Multi-Threading) capacity benefit for zIIPs and IFLs is supported for z14 and z13 processors.

In **Advanced-Mode**, multiple LPAR configurations can be defined, allowing direct comparison of their capacity results, by partition or for the LPAR host as a whole.

zPCR results are presented in tables and graphs that can be easily captured for notes, presentations, or handouts. A complete study can be saved for future reference. A User's Guide, integrated online help, and other useful documentation are included.

IBM Customers can obtain **zPCR** via the Internet at:

www.ibm.com/support/techdocs/atmastr.nsf/WebIndex/PRS1381

For questions concerning **zPCR**, contact **Capacity Planning Support** via:

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