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EPV Technologies Newsletter

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1) Tech Papers - Large Memory Pages - Part 1

Ever since the days when z/OS was called MVS, virtual memory has always been managed in 4096 byte pages. However, with the advent of z/OS 1.9 and z10 machines, 1MB pages can be used, whilst 2GB pages are also supported with z/OS 1.13 and zEC12.

The reason for this fundamental breakthrough is the exploitation of 64–bit architecture; it is now possible to create huge z/OS address spaces: up to 16 ExaBytes of virtual memory. In order to back this virtual memory, the more recent IBM hardware is able to provide up to 3 TB of real memory which is, by the way, much cheaper than previously .

In 31-bit mode the maximum address space size was 2GB; it could be mapped by using 256*2.048 (524.288) 4K pages.
In 64-bit mode to map all the address space virtual memory 256*2.048*2.048*2.048*2.048 (4.503.599.627.370.500) 4K pages would be required.
It’s intuitive that managing such big address spaces with so many small 4K pages would not be very efficient; so to improve performance and to reduce CPU consumptions of memory-intensive workloads (e.g. DB2 and WebSphere applications), it is possible and advisable to use large

memory pages.

In this paper after an introduction to virtual to real address translation, we will discuss what you have to do in order to exploit large memory pages and which metrics are available to analyse their utilization.

If you want to receive the paper you can reply to this e-mail writing **"Large Memory Pages - Part 1"** *in the subject*

2) Tech News - Upcoming conferences

EPV Technologies will present at the following conferences:

- UKCMG Annual Conference, London, UK

"Saving Money by Managing CPU Utilization", 9:00, 15 May 2013, mainframe track
Agenda and subscription form available at: www.ukcmg.org.uk

- CMG-Italia Annual Conference, Milano, Italy

"Large Memory Pages", 15:15, 21 May 2013
Agenda and subscription form available at: www.cmgitalia.org

- IBM zTechnical University, Munich, Germany, 10-14 June 2013

"From z10 to zEC12 Expected and Unexpected Results",
"Saving Money by Managing CPU Utilization",
"Where do my batch jobs spend all this time ?".
Agenda and subscription form soon available at: http://www-304.ibm.com/jct03001c/services/learning/ites.wss?pageType=page&c=L861347E68263B24

3) Tech Notes - EPV for DB2 V7 announcement

EPV for DB2 V7 and EPV for DB2 Plus V7 are now in Managed Availability.
Products GA is planned by the end of May 2013.

The major new usability features are:

- Split and Compare;
- Redesigned EPV favorites;
- New scroll function;
- Optimized HTML page size.

Most important new technical reports are related to:

- DB2 SOS critical events;
- Common and shared storage analysis;

- DS OPEN/CLOSE Activity;
- Log Read Activity;
- High Performance DBAT activity;
- Global Dynamic STMT Cache activity (including CSWL support);
- Local Dynamic STMT Cache activity;
- Package statistical analysis.

A new type of report, which can be produced on demand, has been also introduced:

- Short accounting summary
- Long accounting summary
- Short accounting detail
- Long accounting detail

If you want to test the product in your environment or learn more please write to epv.info@epvtech.com.

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