CA SYSVIEW® Performance Management Option for DB2 for z/OS

At a Glance

CA SYSVIEW® Performance Management Option for DB2 for z/OS (CA SYSVIEW Option for DB2) provides real-time performance monitoring of DB2 applications and subsystems, enabling the rapid detection and correction of performance problems.

Key Benefits/Results

- **Comprehensive performance monitoring.** Get real-time DB2 subsystem and thread activity, historical tracking, online and batch reports and enhanced explain facility.

- **Rapid problem detection.** Monitor exceptions through thresholds and identify expensive SQL.

- **Customization.** Create new displays and reports using the Insight Query Language (IQL).

Key Features

- **Real-time monitoring.** Provides information about DB2 subsystems, applications and resource consumption.

- **Historical performance data.** Enables review of past performance issues; helps detect trends.

- **Monitor static and dynamic SQL.** Identifies resource-intensive SQL without starting expensive traces.

- **Exception monitor.** Includes hundreds of predefined exception conditions to detect, notify and resolve issues.

- **IQL.** Extends your ability to create or modify most reports and online panels, and build exceptions based on any arbitrary DB2 trace record.

- **Enhanced explain facility.** Simplifies application performance investigation.

- **Reporting capabilities.** Includes reports based on collected and externalized DB2 trace data.

- **zIIP support.** Reduces the processing load on general CPUs and decreases overall cost of product ownership.

Business Challenges

As DB2 applications increase in complexity and the DB2 databases grow in size, optimizing performance is becoming increasingly critical. When transactions use not only static but dynamic SQL that enters DB2 through various gateways or JDBC connections, it is crucial that your DB2 subsystems and applications are performing at their best. Identifying the most expensive and resource-intensive SQL becomes an important requirement to tune your system response times. The era of big data brings even more challenges to organizations, making it essential to gain deep insight into the company data processing.

CA SYSVIEW Option for DB2 collects data from the z/OS subsystem interface, DB2 and z/OS control blocks and DB2 performance traces, including input from the IBM DB2 Analytics Accelerator to provide online access to critical performance statistics. In addition, the product monitors subsystems, connections from CICS, IMS and network applications and application statistics to assess and troubleshoot problems as they arise.

Solution Overview

CA SYSVIEW Option for DB2 is a real-time monitor that provides your database administrators (DBAs) with the tools they need to maximize DB2 system and application performance. With its extensive Insight Query Language (IQL), you can tailor and extend this product to perform customized monitoring functions.

In addition, CA SYSVIEW Option for DB2 exceptional processor detects subsystem resource utilization that has exceeded a user-defined limit and notifies DBAs about exceptions as they occur—helping your DBAs take immediate corrective action, or examine a log of recent exceptions to detect trends.

CA SYSVIEW Option for DB2 uses subsystem statistics and thread accounting data to analyze the performance of new or modified applications during stress testing, before they are migrated to a production environment. In addition, this solution helps DBAs determine the cause of DB2 application performance problems and provides the information needed to tune an application.

Critical Differentiators

- **System condition monitor.** Provides a single point for viewing the status of all DB2 subsystems across local and remote z/OS images so you can identify areas for performance improvement and diagnose the issues' causes.

- **Flexibility with IQL.** Changes the default view of the performance data to best satisfy your monitoring needs. IQL lets you customize most online displays and batch reports or create new ones.

- **Exceptions system.** Provides hundreds of exceptions to monitor the DB2 subsystem, databases and its applications. Change or create exceptions based on the thousands of metrics available. Use IQL to create exceptions based on user-specified conditions. Get email and SNMP notification. Integrate with CA OPS/MVS Event Management and Automation.

System Statistics Display: CA SYSVIEW Option for DB2 for z/OS displays key subsystem statistics in one place.

```
Menu  Print  Tools  Help    CA SYSVIEW for DB2   DB2G CA31      05/12/14 10:56:49
                             99.9 SP0        SHR999K7                     TRODE05
_  1 SnapShot  2 Buffer Pool  3 EDM Pool  4 Logs  5 Threads  6 More...


R/SYSSTATS      System Snapshot - Accumulate                         Row 1-14/25
                                                                     Accum

EXCEPTIONS Crit Warn Info   BUFFERS             EDM POOL
 Subsystem    9    3    2    Warnings     841    DBD Lds 419121    % Rqsts  79.2
 Database    59   23   67    Act Pools      6    CT  Lds    115    % Rqsts   1.0
 Applicatn    0    0    0    % Act Pgs    2.9    PT  Lds    779    % Rqsts   1.1
             Pct  Max StIn  Getpages   81760K    Dyn Ins   5851    % Rqsts  31.3
LIMITS Current Max  HWM  HWM Sync Rds    1241K
 Users       12    3   31   18 Read Eff    65.9  LOCKING
 TSO          0    0    3    3 Buf Updts 843526   Suspend  33019  LOGGING
 Batch       12    3   31   16 Pg Writes 199695   Escalate     6   Dlyd Wrts    0
 DDF Actv     0    0    2    0 Write I/O  27713   Timeout      0   Arch Read    0
 DDF Inac     7    0   10                         Deadlock    21   Min/Chkpt  698
 Dataset    385    1                                              Warnings     0

SQL                       ADDRESS SPACES          THREADS      Active   Actv+Cmplt


Command ===> _____
   F1=Help      2=Split     3=End      4=Plot                    6=History
   F7=Up        8=Down      9=Swap                              12=Return
```

- **Highlight worst SQL.** Identifies worst performing or most resource-intensive static and dynamic SQL statements in real time or by history interval without the need for expensive traces or hooks.

- **Integration.** Integrates with CA SYSVIEW Performance Management and CA Cross-Enterprise Application Performance Management to provide overall z Systems monitoring capabilities.

- **Reporting for IBM DB2 Analytics Accelerator for z/OS.** Collects and reports on Accelerator-related trace data, to help you better manage, monitor and identify offload eligible workloads.

Related Products/Solutions

- **CA Database Management for DB2 for z/OS** ensures efficient database administration.
- **CA Cross-Enterprise Application Performance Management** enables monitoring of metrics from the APM framework.
- **CA SYSVIEW Performance Management** provides DB2 performance information.
- **CA Detector for DB2 for z/OS** integrates with CA SYSVIEW for DB2 for the SQL statement data.
- **CA OPS/MVS® Event Management and Automation** is invoked directly on DB2 exceptions.

For more information, please visit **ca.com/db2**