VERITAS Indepth™ for IBM DB2 Universal Database

FOCUSBING ON DELIVERING TOTAL APPLICATION AND DATABASE PERFORMANCE MANAGEMENT

VERITAS Indepth for IBM DB2 Universal Database (VERITAS Indepth™ for DB2 UDB) gives Database Administrators (DBAs) and business leaders the application performance management they need by proactively monitoring, analyzing, and tuning DB2 UDB. VERITAS Indepth for DB2 UDB not only identifies business application performance problems, it helps solve them. To ensure that mission critical applications perform at peak efficiency, VERITAS Indepth for DB2 UDB provides a complete view of application performance by capturing, measuring, and correlating performance metrics from all crucial system components. VERITAS Indepth for DB2 UDB helps improve end user response time while maximizing the return on technology investment.

HIGHLIGHTS

• Generates an accurate, detailed picture of application performance
• Serves custom developed, ERP, and e-business applications
• Delivers rapid, graphical drill down from the instance level to the root cause
• Monitors continuously and proactively
• Provides recent history for diagnosis and resolution after the fact
• Stores long-term history to support trending and planning

CONTINUOUS MONITORING TO SAVE TIME AND EFFORT

VERITAS Indepth for DB2 UDB monitors the DB2 environment continuously and captures performance data for current, short-term, and long-term performance analysis. Eliminating a bottleneck like a locked session or a runaway process is easy with VERITAS Indepth for DB2 UDB’s up-to-the-second snapshot of database activity. Session status, resource consumption patterns, and detailed information on locking situations, is available for each current session allowing performance analysts to address all performance problems immediately, or later, as time allows. Use the product to look back in time and answer questions like, “What happened at 3AM?” and identify problematic time periods. Powerful drill down features lead to the bottleneck that may be causing a performance problem.

IDENTIFY PERFORMANCE SHORTFALL CAUSE AND EFFECT

Once a performance problem is detected, VERITAS Indepth for DB2 UDB’s powerful drill-down process can pinpoint the problem’s root cause. For example, DBAs and performance analysts can use the drill-down process to identify a problem caused by a resource bottleneck or a poorly written SQL statement, program, or database object.
**Viewing Performance Data on the Database Level**
At the database level, DBAs can see if their databases are CPU or I/O bound, and how much time is spent on different internal waits, OS resource shortages and locking problems.

**Viewing Performance Data on the Resource Consumer Level**
To determine which entities are responsible for a performance problem, VERITAS Indepth for DB2 UDB drills down another level to help identify which entities (e.g., users, programs, and client machines) consumed the database resources and how much they consumed as a proportion of overall consumption.

**Viewing Performance Data on the SQL Statement Level**
After a major resource consumer is identified, VERITAS Indepth for DB2 UDB can drill down further to the statements executed by the entity. These statements may include long running SQL statements as well as SQL statements that use few resources but are executed frequently.

**PROBLEM ANALYSIS AND RESOLUTION**
Once DBAs identify a problem in their databases, they can use VERITAS Indepth for DB2 UDB’s analysis features to focus on problematic SQL statements and/or database objects.

**SQL Statement Analysis**
VERITAS Indepth for DB2 UDB presents the DB2 access path in detailed steps and displays statistics relevant to each step. Original statement text is displayed side-by-side with optimized text and highlighted as you step through the Optimizer generated statements. Associated database objects, their statistics and inefficient steps are marked as you investigate each step.

**Database Object Analysis**
For tuning a database object rather than a statement, VERITAS Indepth for DB2 UDB offers the capability to list statements that access a specific table or index. Information on the amount and type of resources each statement consumes while accessing a specific database object and ranking of the statements by the amount of resources consumed is also provided. Unused indexes are easily identified.

**Table Space and Buffer Pool Analysis**
VERITAS Indepth for DB2 UDB continuously collects and archives table space and buffer pool I/O performance data. Performance analysts can then identify table spaces that are accessed most often, have the worst response times, and which table spaces or buffer pools have the worst hit ratios. Table and index usage over time is tracked and further drill down is provided.

For each SQL statement, VERITAS Indepth for DB2 UDB provides information on:
- Entities that executed the statement
- Resources consumed (e.g. CPU, I/O, Lock Wait)
- Resource consumption patterns across statements for the same object
- Inefficient optimizer steps
Find out how your database instance behaved over time, then drill down to sessions, users, programs, and specific performance issues.

LONG-TERM TRENDING AND BUSINESS PLANNING
VERITAS Indepth for DB2 UDB’s Performance Warehouse depicts long-term resource consumption patterns and suspicious deviations in past behavior. It is the perfect solution to plan system capacity, perform period-to-period comparisons, and optimize storage.

PERFECT FOR BOTH DEVELOPMENT AND PRODUCTION
VERITAS Indepth for DB2 UDB’s unique architecture and advanced features make it the only performance monitoring solution that can support an application throughout its life cycle. The VERITAS Indepth for DB2 UDB solution continuously collects performance data while consuming only small amounts of DB2 UDB resources. Low overhead collection coupled with complete historical data ensures that administrators have the information they need to tune without fear of inadvertently changing the production database. Development staff can take advantage of the product’s ability to tune applications before they are moved to production, while both can benefit from a common exchange of performance information.

TECHNICAL SPECIFICATIONS
IBM DB2 Universal Database
- Enterprise Edition (EE) or Extended Enterprise Edition (EEE)
- Version 6.1, Fix Packs 1, 3, 4, and 8
- Version 7.1, Fix Pack GA, 2, 2a, 3, and 4
- Version 7.2 (32 bit: all, 64 bit: Solaris 2.8+, AIX 4.3+)
- Version 8.1 ESE

Server Operating Systems
- IBM AIX 4.3+, 5.1 (32 & 64 bit)
- HPUX 11.0+ (32 & 64 bit)
- Sun Solaris 2.6+ (32 & 64 bit)
- Red Hat Linux, version 6.2 or above
- Microsoft Windows NT/2000 on Intel

Client PC Specifications
- At least 32 MB of memory and 16 bit color, SVGA
- Microsoft Windows 95, 98, NT, or 2000 SP4+
- CPU speed of 300MHz+
- Internet Explorer 5.0 or above (to view the online help)
- Acrobat Reader 3.0 or above (to view the documentation)