

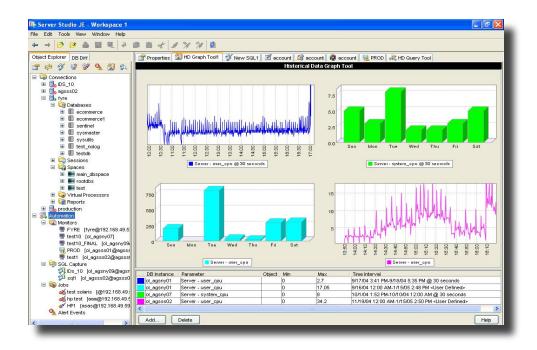
#### • A comprehensive multi-platform suite of proven system management tools for IBM Informix® DBMS servers that help database professionals to be more effective and productive by simplifying complexities of daily tasks.

- Highly intuitive graphical console provides a powerful set of seamlessly integrated database management tools that minimize error-prone, time-consuming, command-line-driven administrative tasks.
- Keep database servers performing at peak levels with an extensive assortment of analytical tools to diagnose and respond to performance and availability problems in real time.
- Automate 24 × 7 monitoring of server operational parameters and retain continuous time-series measurement data of the server's performance in an integrated repository.
- Improve utilization of data storage resources by efficiently reorganizing vital databases with minimal application downtime.
- Preserve your database investment with the comprehensive configuration auditing and change management solution for your databases.
- Maximize availability of vital databases by enabling fully autonomic responses to critical server events.
- Manage entire IBM Informix® DBMS infrastructure from a unified point of control irrespective of whether the database servers are all in one location, or at remote sites around the world.
- Resolve query response problems with extensive built-in SQL diagnostics and tuning facilities.



# Server Studio<sup>™</sup> JE with Sentinel<sup>™</sup>

### maximize performance, availability and maintainability



Your vital infrastructure of database servers is complex, but the tools to manage it don't have to be. Server Studio™ JE and Sentinel™ together provide state-of-the-art, powerful solutions that help both seasoned database professionals and novices alike manage IBM Informix® DBMS environments with an unprecedented ease and improved productivity. This multi-platform suite of integrated, highly intuitive system management tools helps organizations ensure that critical database applications remain up and perform at peak levels, manage change and assure availability of vital business information.

Server Studio™ JE provides a comprehensive collection of modern, easy-to-use, proven tools for DBAs and developers that improve efficiency of performing common database tasks such as: SQL development and debugging, schema management, configuration auditing and change management, performance tuning, data storage management and reorganization, security administration and more — all from an integrated graphical console that unites all development, administration and maintenance activities for your entire IBM Informix® DBMS servers infrastructure at a centralized point of control.

Sentinel™ automates proactive 24 × 7 operational monitoring of IBM Informix® DBMS servers, provides an extensive array of sophisticated diagnostics tools to optimize critical performance parameters, executes regular database maintenance tasks, enables setting of highly flexible multi-level alerts to flag availability and performance degradation problems and manages autonomic responses to server events in real time.

Together, Server Studio™ JE and Sentinel™ provide wide-ranging functionality to support your organization's vital IBM Informix® databases — from initial design, development and testing, all the way through to production deployment and operational service.

## **Avant-garde DBMS Tools**

Several of the wide-ranging capabilities provided by Server Studio™ JE and Sentinel™ to support IBM Informix® database servers infrastructure are summarized here by functional domain.

#### **Database Development and Debugging**

Server Studio™ JE is the premier graphical integrated development environment for IBM Informix® database servers that features a rich collection of modern, highly intuitive, easy-to-use tools for coding and interactive debugging of stored procedures, schema and SQL scripts development, change analysis, query tuning and data storage allocation planning to help improve performance before deployment.

#### **Pre-Deployment Testing**

Benchmark Runner module effectively simulates real-life scenarios of hundreds or thousands of users simultaneously accessing your database application to pinpoint bottlenecks and set database performance benchmarks by gathering the required database performance facts needed to identify point-of-system failures and achieve required levels of performance. Data Manager module can quickly and easily populate test databases with millions of rows of meaningful, syntactically correct test data, while maintaining full referential integrity — enabling application testing with enough data to give a realistic picture of database performance in the production environment.

#### **Database Change Management**

Schema Manager module eases the deployment of database schema changes from development to test to production systems by managing database objects' dependencies while maintaining control with extensive change documentation. DB Difference Analyzer module performs comprehensive comparative analysis of all database objects' properties between two databases instances including table structures, referential integrity, fragmentation, syntax of stored procedures, triggers and views and it can automatically generate full synchronization scripts based on comparison results.

#### **Database Administration**

Server Administrator module is a state-of-the-art integrated workbench that helps manage multiple DBMS servers from a single console and simplifies database maintenance with a comprehensive graphical object management interface that allows you to quickly create, drop or alter database objects to accommodate business and application needs. It also simplifies systems' administration with a rich set of reports for accessing server's performance and data storage space utilization.

#### **Database Performance Diagnostics, Alerts and Automation**

Sentinel  $^{\text{IM}}$  provides a configurable matrix of over 100 real-time performance diagnostics parameters for  $24 \times 7$  monitoring of the database server operations. Continuous time-series measurement data of the server's performance can be captured and stored in the built-in history repository for subsequent analysis. Multi-level alerts can be configured for each monitored parameter to provide proactive notification of performance problems and autonomic responses to server events.

#### **Storage Space Management and Database Reorganization**

Server Administrator module's Storage Manager helps create or delete DB Spaces, BLOB Spaces and Chunks with ease and provides a graphical representation of data storage space utilization to quickly detect problems such as low scan density and high fragmentation in your databases. The built-in Reorganization Wizard improves utilization efficiency of scarce data storage resources and optimizes database performance by reorganizing table structure and data allocation to reduce the number of table extents, reclaiming wasted space, moving data to a different DB Spaces or fragmenting it across multiple DB Spaces — all with minimal application downtime.

#### **SQL Tuning**

Query Execution Plan Analyzer helps to optimize performance of SQL queries through automatic analysis of the execution plan selected by the server's query optimizer. Sentinel™ SQL Capture facilitates dynamic retrieval of SQL statements running on the IBM Informix server, based on specified selection criteria such as: session user login name, client host, Informix session ID, or SQL statement's estimated cost, estimated number of retrieved rows or number of sequential scans.

"Server Studio brings Informix Database Administration into the 21st Century, replacing ancient command line tools with modern graphical tools. I really can't image how Informix DBA's survived without it!"

Kevin Godsman Musto Ltd, UK

"I like Server Studio a lot. It is one of the best database tools I've used. The fact that I can view data in several instances at the same time, helps tremendously when testing software or comparing objects in development vs. production. ... I highly recommend Server Studio."

Clifford Jardine Computer Sciences Corporation (CSC)

"It is simple. Server Studio is the perfect product. It covers all our needs and what is most important it is simple to use."

> Throstur Jonsson DomestiSoft

"We are operating parts of our billing systems in distributed Informix databases (largest productive instance consists of four machines with eight processors and 16GB RAM each, database volume about 40..60TB). Several thousand tables in active use, several ten thousand tables kept for statistics etc. ... I'm using Server Studio to create new databases, copy structure and data from other instances to them, managing extents, moving tables into other dbspaces when space gets tight, eying locks and lock conflicts and playing with SQL. Server Studio keeps being the best front-end for Informix Systems I've ever tried and has raised my productivity a lot since I started using it."

Norbert Karls ePlus

"I have enjoyed working with Server Studio. It makes everything very easy to manage. This is the best product I have used in daily working with Informix."

> Linwood Jarratt Lake County Administration, Illinois



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