ACTIAN™

Actian X Hybrid Database
Vectorized native hybrid database for operational analytics

Key Benefits

Simple, incremental addition of analytic capability to existing Ingres applications.

Leverages your data across the enterprise - connecting to other data sources and applications.

Increased awareness of health of Ingres database and host system. Better performance and better maintenance planning.

Visualize and manage geospatial applications with best of class tools.

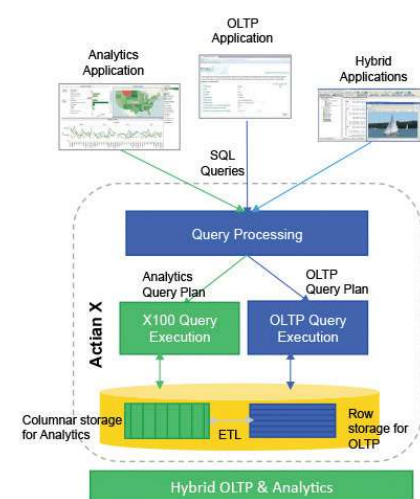More industry-leading low maintenance, low TCO features.

24x7 global enterprise support.

Actian X Hybrid Database is the combination of the industry-leading Ingres transactional and Vector analytic databases, bundled with world class integration and enterprise monitoring.

Combine Record Breaking Analytics with Enterprise Class OLTP

Actian X combines a record breaking analytic engine with rock solid OLTP to enable enterprise applications with both OLTP and analytic features. The X100 component, from Actian's Vector analytic database, lets you store Ingres and/or external data in X100 tables, which are processed using the specialized X100 engine, allowing faster performance for analytical database tasks. OLTP and analytic workloads can be run together and the queries and access methods you're already using can also be run against the X100 data.

A New Type of Application – Operational Analytics

Integrating X100 in Actian X enables a new class of application that can mix OLTP and analytic queries– with each query being directed to the appropriate execution engine. An X100 table can be created and populated with just the data needed for reporting and analytics. The X100 components are designed from the ground up for analytic performance, and to minimize the effect on OLTP operations. Query syntax and connections methods don't change, so effort to harness performance improvement is minimal.

X100 – Analytic Technology Innovation

X100 unlocks performance features in modern CPUs, removing the need for extensive or ongoing tuning by the DBA

- Vector processing – patent pending Actian technology enabling the same chip-level operation to be performed on large numbers of data points simultaneously
- Exploiting chip cache - data processing on chip cache is 100x faster than using RAM
- Updateable 2nd Generation column-based storage – Disk I/O is minimized by accessing only relevant data

Data sheet

- Smarter compression – decompression is performed into the CPU chip cache for maximum query throughput
- Storage indexes – quickly identify candidate data blocks, minimize I/O
- Parallel execution – data is processed in parallel using a configurable number of CPU cores

Leverage Actian X and Ingres Data Across the Enterprise

Bundled with Actian X, DataConnect for Actian X provides an end-to-end solution for designing, deploying and managing data integration with Actian X and Ingres applications. It includes a GUI for connecting to data sources and targets, creating mapping and transformations, and defining workflows to manage automated integration processes.

Keep Actian X Environments in Top Shape with Enterprise Monitoring

Actian X includes Nagios-compatible plug-in scripts that can be used by the Actian Enterprise Monitoring Appliance (EMA) to monitoring Actian X and Ingres environments. The EMA can be configured to monitor and display the status and history of the environment (disk state and performance, HVR status, transaction log file usage, database resources related to performance, operating CPU load, % of free memory remaining, and more). EMA can proactively monitor multiple servers, installations, and databases around the clock, providing early warnings and alerts so problems can be quickly resolved or prevented from occurring. For customers using alternative monitoring software, the plug-ins are also compatible with a wide range of choices, including CA-Unicenter, Microsoft SCOM, BMC TrueSight, ManageEngine, Splunk, and SolarWinds.

Collect, Manage and Analyze Spatial Data

Industry standard 2-d, 3-d and 4-d data types, linear reference functions and R-Tree indexing are just a few of the tools available in Ingres that allow developers to add geospatial related features to Ingres applications. A plug-in for ArcGIS means that Actian X users can use ArcGIS 10.x to visualize and manipulate Ingres geospatial data. For example, application users could view and select specific data based on a location as part of a larger transaction.

OLTP Features Improve Performance and Ease of Use

Actian X includes many new performance, ease-of-use, and security features. A few of the highlights are:

Performance	Ease of Use	Security
- Automatic histogram generation for query performance analysis - Compression of network communications - Query optimizer reuse heuristic - R-Tree Indexing	- Automatic Log file rotation - IANA Timezones - Y2K38 Fix	- Blob encryption - AES password encryption - shaXSum() SQL functions