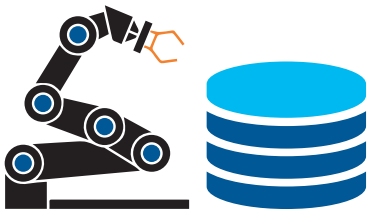# iDBA-Online
Let Artificial Intelligence drive DB2 maintenance

PRODUCT DESCRIPTION

iDBA-Online uses Artificial Intelligence (AI) to provides automatic maintenance capabilities for performing database backups, keeping statistics current and reorganizing tables and indexes as necessary. iDBA-Online sophisticated algorithms combine your SLAs, your business constraints and a cost-benefit analysis to establish in real-time the optimum maintenance schedule.
The maintenance utilities are executed automatically to ensure your compliance with SLA and certify that every single operation has a positive ROI for the overall system.

BUSINESS CHALLENGE

Performing DB2 maintenance activities is essential for ensuring the respect of SLAs. Maintenance activities are critical for performance, recoverability and system resources.
But every maintenance operation also has a cost in terms of CPU and I/O. Knowing or being able to evaluate the impact is essential to determine the optimum time for performing maintenance operations and to get a clear advantage in application performance and operational costs. Intelligent automation allows you to focus your efforts where they matter most: innovation, performance and availability of your critical data assets.

KEY BENEFITS

Up to 95%
Improvement on application performance

Up to 10%
Savings on application CPU consumption

Up to 55%
Savings on maintenance costs

100%
Match with your SLA's

KEY FEATURES

iDBA-Online innovates by using AI technologies to keep DB2 environments optimized at any time.

- Automate DB2 maintenance tasks with Smart Pilot
- Reduce maintenance costs by scheduling necessary tasks only
- Reduce application costs by ensuring positive ROI for every single maintenance task
- Ensure the maintenance strategy complies with your SLAs
- Maintain continuous availability to DB2 data
- Control maintenance operation trough a centralized interface
- Ensure maintenance operations without impacting CPU billing
- Collect statistics without affecting applications
- Focus DBA's efforts on innovation rather than basic maintenance management

ENSURE ROI OF MAINTENANCE OPERATIONS

iDBA-Online determines automatically what maintenance tasks need to be performed on your DB2 environments. The decisions are based on a cost-benefit analysis that take into account the business constraints (SLAs) defined by users, the use of DB2 data by applications, the current status of the tables and indexes and the cost of the maintenance. By performing only the maintenance tasks that have a positive ROI on your system, iDBA-Online guarantees the DB2 database is constantly optimized for (your) applications. This cost-driven strategy leads to avoid unnecessary maintenances and minimizes system resources. With iDBA-Online's AI, you can manage larger workloads with smart and agile automation.

SMART AND DYNAMIC PLANNING

iDBA-Online defines the optimum planning for DB2 maintenance operations that will maximize overall system performance while ensuring full data integrity and lower application costs. iDBA-Online collects CPU and workload information to predict when is the best moment to schedule maintenance utilities. The planning and the strategy are dynamically adapted in real-time based on the instant workload.

INTELLIGENT PILOT FOR DB2 UTILITIES

iDBA-Online controls the execution of DB2 utilities and makes live-time decisions on database maintenance without generating any JCL: parallelism management, selection of the execution mode (Online or Offline), recovery… Utilities include online and offline reorganization, synchronous and asynchronous backup, data load and unload, and DB2 catalog statistics update. In the case any problem occurs during a utility cycle, iDBA-Online manages the complete recover to ensure application availability.

COST-DRIVEN MAINTENANCE STRATEGY

iDBA-Online's sophisticated algorithms are designed to perform maintenance operations only when there is a positive ROI for your applications. Every maintenance operation has a cost and not executing maintenance operations leads to increased resource consumption, risks and performance deterioration (disorganized data structures, poorly allocated storage space, unreliable capacity planning). iDBA-Online assesses these costs and impacts to ensure that each maintenance task has a positive ROI.

PLUG AND PLAY

iDBA-Online does not require change on your environment either on the necessity of writing JCL. iDBA-Online integrates its own built-on ultra-fast utilities and supports IBM DB2 standard utilities and syntax.

ENFORCE YOUR BUSINESS SLAS

The decisions made by iDBA-Online's AI take into account the business rules and SLAs defined by your users. A centralized interface allows them to define groups of objects and the rules associated to each group. Those rules includes: data availability, forbidden periods, backup strategies… Business value of application can be set in order to privilege DB2 objects that are important for your business.

Inputs

Periodic collect of DB2 data (RTS, catalog, dataset…) | Periodic collect of ressource data (SMF) | Definition of business rules | Current workload | Optional: control via the scheduler

iDBA-Online

iDBA records on DB2 RTS, catalog and datasets	iDBA records on z/OS system	iDBA records on SLAs	iDBA records on past operations	
How DB2 objects are used? In what condition are DB2 objects?	What is the normal usage profile of system resources over a standard month?	What are the business constraint ? What are the restriction in regards of the CPU billing?	How long will take maintenance task? How much it will vost? What is the CPU consumption profile of the machine?	What is the current workload of the machine?

iDBA's AI — AI performing real-time analysis

Optimum planning

iDBA's Controler

Control of utilities

Utilities

Reorg	Backup	Runstat