

# ActiveBase Tuning Robot™

Automating the application tuning process

## The Challenges

**Business applications** suffer from long response times and overall performance degradation caused by untuned source code SQL requests. Database experts estimate that 70% of application performance issues can be resolved by **SQL tuning**, improving response time and preventing downtime.

Manual tuning of SQL requests is time consuming and requires extensive DBA expertise that is always in shortage

## The Solution:

**ActiveBase Tuning Robot™** is powerful and intuitive server-based SQL tuning software that delivers an automatic and continuous application tuning process on your production environments.

It automatically identifies top-SQL requests from Oracle AWR, analyzes the SQL request, identifies quality execution alternatives and benchmarks them in a tightly controlled process, ensuring best possible performance for your environment.

Through its automated SQL optimization process, ActiveBase Tuning Robot for Oracle:

1. Automatically identifies long-running or resource intensive SQL statements from Oracle AWR
2. Analyzes SQL statements for alternatives with unique execution plans
3. Lists every alternative in order from most optimal to least
4. Benchmarks relevant alternatives against a database environment (production or pre-production replication) to locate the most efficient statement
5. Provides detailed execution statistics for comparison
6. Continues to tune the next SQL request, as listed in the top-AWR tables, continuing with SQL analysis and benchmark

A summary rules file is created to include all the best application tuning improvements. The rule file is imported into ActiveBase Performance in-line proxy that can apply the SQL improvements on application requests transparently, without touching application source code.

## Highlights

- Automate the process of identifying and tuning SQL statements
- Ensure that you are using the best SQL optimization for your environment
- Enable non-DBAs to tune and deploy optimized SQL within application source code



## The Result:

Developers and DBAs combine effort to quickly and efficiently improve SQL source-code, helping you proactively identify potential issues and automate the SQL optimization process.

## For Database Administrators

DBAs are responsible when there are problems with the database environment. They are required to resolve long-running and inefficient SQL requests that impact the end user experience and needs to be fixed quickly.

ActiveBase SQL Expert for Oracle automates SQL optimization with a quick and easy to use tool, saving time and resources.

DBAs do not need to wait until performance deteriorates and end users complain, as they can take a more proactive approach.

Different database changes such as optimization parameters, indexes, snapshots and partitions are best used, as ActiveBase SQL Expert finds the best execution plan for the environment.

### Integration with other ActiveBase modules:

ActiveBase SQL Expert integrates with ActiveBase Tuning Robot, ActiveBase Performance and ActiveBase Priority.

#### ActiveBase Tuning Robot

Provides a server side SQL Expert, for a continues tuning assignments on production environments

#### ActiveBase Performance

Packaged applications do not have any source code control. The ActiveBase SQL Expert tuning results need to be manually coded, waiting for weeks and month until application upgrades occur. ActiveBase Performance allows immediate SQL fixing without touching source code or database configurations. Using its unique in-line software proxy, it intercepts the inefficient SQL source code, replacing it with the tuned SQL on-the-fly.

#### ActiveBase Priority

ActiveBase Priority enables to manage the database server resource allocation according to business priorities. It ensures that resource intensive SQL requests do not have any negative effect on performance as service levels are guaranteed at all times.

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