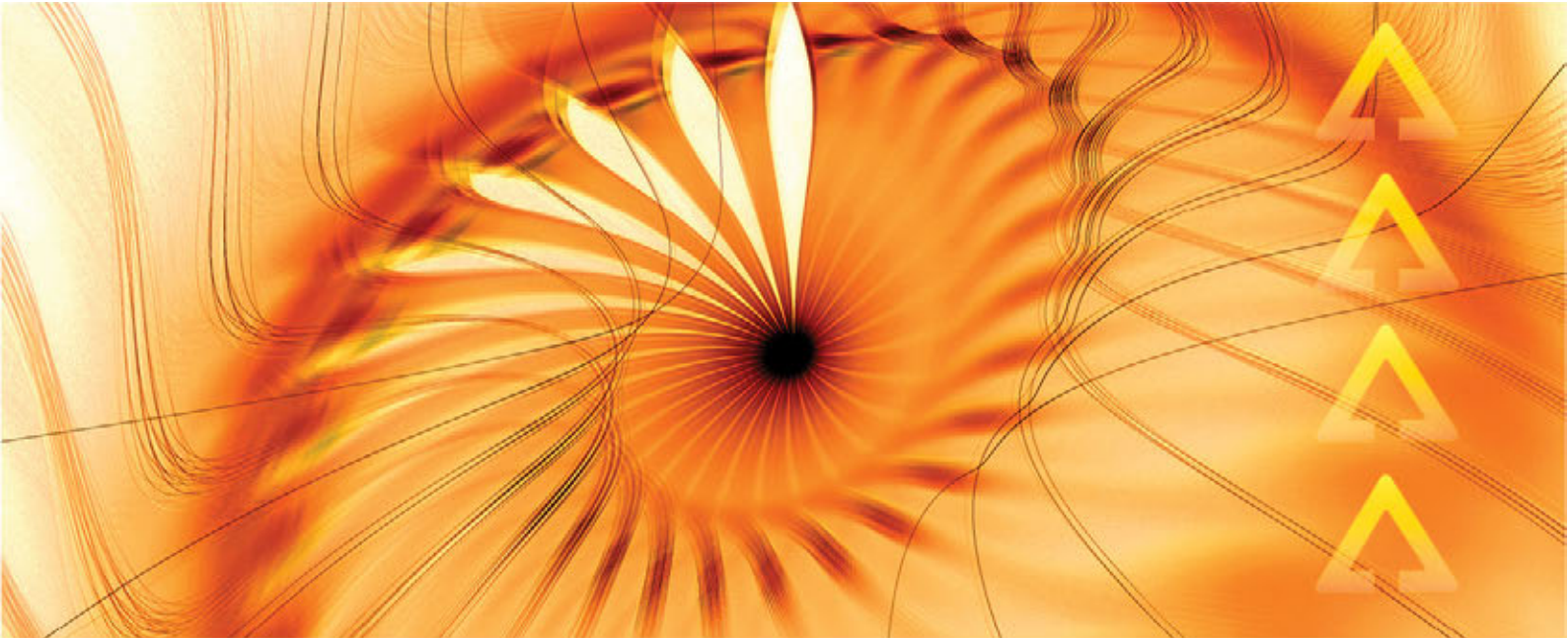




**TUNING
ACE**

Performance Tuning Suite

Improving application and database response



➤ TA Performance Suite provides focused attention for Optimal Oracle Database performance. The Suite provides solutions to key areas resulting in better database performance, allowing application like ATG websites to run faster on fewer CPUs.

The Tuning Ace Performance Suite approach is a focused approach to performance tuning. The TA Performance Suite is a collection of analyzers that review key areas in the Oracle Database that are known to cause performance issues.

At Tuning Ace we provide a complete solution from analysis to professional services all focused on the possibility of having optimal Oracle performance today. The TA Suite has several analyzers that perform analysis with minimum system impact.

The typical DBA today has very little time to perform detail system reviews. Most DBAs are usually busy standing up the next environment and dealing with the current crisis. Unless your website has someone complaining the DBA usually does not spend extra time looking for ways to improve performance.

One of the Performance Suite analyzers is called TA Nucleus. TA Nucleus validates both database and application structures involved with performance. This is very important because the application structure has a direct relationship on performance and so does the database configuration. Both need to be checked together for optimal performance.

How Fast is your website? Can your customers add items to the cart less than 3.2 seconds? Are your customers waiting for your website?

If your website is taking over 3.2 seconds to add an item to the shopping cart you are losing customers. Period! Lost customers mean a loss in revenue.

What is the solution?

Caching, like coherence, does not help when it comes time to add items to a shopping cart.

Throwing hardware at the website is not only an expensive solution, especially with the new database CPU core licensing, it may not even work. We have seen added nodes to a RAC environment actually slowdown overall system performance.

Monitoring does not solve the problem, because it only tells you when you have a problem. Working in Crisis Mode does not result in long-term solutions.

The Solution is to have the system validated and reviewed by the Tuning Ace Performance Suite before the next big load thing hits.

The TA Suite gives you the possibility of finding solutions today before they become tomorrow's emergency.

Resulting in improved revenue the site generates on Black Friday, Cyber Monday or when the next promotional emails are sent.



➤ The TA Performance Suite produces solutions to performance issues. This gives you the possibility of having improvement in overall system performance today.

Many people are not aware that the applications running on the Oracle database can be optimized further than what comes "out of the box". Many people assume that the vendor has already tuned the application and no further optimization or tuning is needed. Others assume that all they need to do is run a few AWR reports and everything will be OK.

Are You Throwing Hardware At The Problem?

Others believe that performance is based solely on number of CPUs, and the solution to any performance issues is to add more. They have this thought that they can just need to buy more hardware to fix the performance problems or to meet a SLA agreement. They simply feel that they can spend their way out of a performance problem.

Later they realize that all of the money is gone and have to face the reality that performance has not improved or has improved very little. This leaves Application users frustrated and IT groups struggling to find more money to spend on the new database licenses they have acquired to not fix a problem.

Is your Website Slow?

If your website is taking over 3.2 seconds to add an item to the shopping cart, you are LOSING CUSTOMERS. Customers will not wait for a slow website. The speed of how fast items are added to the shopping cart has a direct impact on revenue generated.

Slow Websites have lower revenue than Faster Websites.

Use the Tuning Ace Performance Suite to fix what is slow, and increase your revenue without adding more hardware.

“... thoroughly optimizing the entire ATG stack and tuned it so well that I wasn't even aware of that such a level of optimization was possible”

Kelly G, *Chief ATG Architect*

No assumptions about your applications

The Tuning Ace Performance Suite (TAPS) makes no assumptions about your applications running on the Oracle database. This is one of many reasons why it is better. Since the TA Performance Suite makes no assumptions it does not skip areas key to performance other tools may assume.

The TA Performance Suite performs several validations checking for items that are known to cause performance issues. Areas include:

- The structure of the applications in the database.
- Database configuration.
- SQL Statement analysis.
- SQL Plan analysis.
- Load test analysis.
- Impact analysis of changes in the system.

Multiple Analytics Working Together

The Tuning Ace Performance Suite has several analytical engines that work together and all are focused on performance analysis. The TAP Suite has steps that when followed produce phenomenal results.

Also your staff can decide how far they want to go. Can implement all of the recommendations or some of the recommendations. It all up to you and your staff as to what they do. If you have questions we offer phone support and even onsite consulting services to help for an additional charge.

— Fixing Performance Area May Solve Other Issues

One of the great side effects of using the TA Suite is that other issues your staff is dealing with today maybe resolved by making the recommended changes.

For Example, is your staff dealing with deadlocks in the database? Deadlock occurs when two users need to update each others locked or changed information to complete a transaction. What many do not know is that deadlocks can occur as the result of a missing Foreign Keys index.

The reason why a missing Foreign Keys index can cause deadlocks is how the database validates the Foreign Key relationship. The database has two ways of performing this validation, one is very quick and one is slower. The slower method locks objects in a different way when the index is not present and this other method can produce intermittent deadlocks that are very hard to catch. Resulting in staff spending hours, days and even weeks trying to determine the exact circumstance that causes the deadlock.

Complete Review

One of the analytical engines, TA-Proton® reviews ALL of the SQL in the system. By performing such detail analysis it makes it possible for the tool to advocate a more complete recommendation to solve your performance problem.

Impact Analysis

When tuning, sometimes things do not go as planned. Someone adds an index to fix one SQL statement and never checks to see how that one index changed other SQL statements. The Impact analysis analytical engine performs this type of analysis. Now you can see what happens when as the result of adding an index. Also this can be used as trend analysis, identifying changes over time.

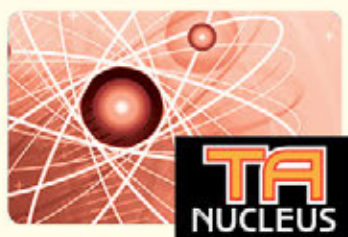
Save on your Database CPU Core License

Tuning your system can produce a reduction in the number of CPU cores needed by your application. With the new CPU Core pricing this becomes critical. Adding a new node is a very expensive step if it does not solve the problem. We see all the time where customers just replace existing hardware with the same number of sockets only to find out that they now owe 100,000s of dollars in new license fees.

You can save on database license fees by using the Tuning Ace Performance Suite.



➤ The Tuning Ace Performance Suite is a set of analytical engines working together and designed to improve performance of any application running on the Oracle database giving the possibility of improved performance resulting in savings on license fees and hardware costs.



TA-Nucleus

This analyzer validates application structure and database settings together. It is important to check both because the application model has a direct impact on performance of an application and so does the settings of the database.
license fees



TA-Proton

This analyzer validates SQL. This does more than just the top 10 like other tools may perform. The analytical engine reviews all of the SQL in the system. Checking SQL Plans and other items with the goal of recommending solutions that improve multiple SQL statements at once.



TA-Atom – Load test

This analyzer is specifically designed to find problems in a load test before production. Simply run this after the load test completes and obtain items that should be reviewed before releasing into production. This can also be used for trend analysis showing the performance change over time.



TA-ATG

This analyzer is specifically designed for ATG ecommerce sites running on the Oracle database. Giving the possibility of reducing the time it takes to add items to the shopping cart and thereby increasing website revenue and improving all interactions with the database.



TA-Support and Consulting Services

If your team does not understand a recommendation, they can call support for help. If needed we offer onsite-consulting services to help optimize your database.



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