SYSTEM MONITORING PLUG-IN FOR MICROSOFT SQL SERVER

ORACLE 12c
ENTERPRISE MANAGER

KEY FEATURES

- Out-of-the-box availability and performance monitoring
- Detailed configuration information collection and analysis
- Out-of-the-box reports for easier problem diagnosis, trend analysis and capacity planning.
- Advanced monitoring and event management features:
  - o Blackouts
  - o Corrective Actions
  - o Notifications
  - o Metric Extensions
  - o Monitoring Templates
  - o Dashboards
  - o Chargeback Functionality
- Prepackaged jobs to Start/Stop/Pause/Resume SQL Server instances from Enterprise Manager
- Database backup management and scheduling
- SQL Server Compliance Standard

Oracle Enterprise Manager is Oracle's integrated enterprise IT management product line, providing the industry's first complete cloud lifecycle management solution. Oracle Enterprise Manager's Business-Driven IT Management capabilities allow you to quickly set up, manage and support enterprise clouds and traditional Oracle IT environments from applications to disk. Enterprise Manager allows customers to achieve best service levels for traditional and cloud applications through management from a business perspective including for Oracle Fusion Applications, provide maximum return on IT management investment through the best solutions for intelligent management of the Oracle stack and engineered systems and gain unmatched customer support experience through real-time integration of Oracle's knowledgebase with each customer environment.

The Enterprise Manager System Monitoring Plug-in for Microsoft SQL Server delivers comprehensive availability, performance and configuration information for Microsoft SQL Server. By combining Microsoft SQL Server monitoring with the richest and most comprehensive management of Oracle systems, Oracle Enterprise Manager significantly reduces the cost and complexity of managing IT environments that have a mix of Microsoft SQL Server and Oracle technologies. Administrators running packaged and custom applications on top of Oracle systems and Microsoft SQL Server can now centralize all of the monitoring information in the Oracle Enterprise Manager Cloud Control, model and view the complete topology of their applications, and perform comprehensive root cause analysis. Database administrators managing Oracle Databases and Microsoft SQL Server can perform proactive monitoring and detailed configuration analysis for Microsoft SQL Server, while consolidating all of the management information about their database environment in the Oracle Enterprise Manager Console.

Realize Immediate Value through Out-of-Box Availability and Performance Monitoring

The System Monitoring Plug-in for Microsoft SQL Server automatically collects a comprehensive set of availability and performance metrics with pre-defined thresholds, immediately alerting administrators of any issues. This allows administrators to derive

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instant value, while giving them the flexibility to fine-tune thresholds according to their specific operational requirements. Over four hundred metrics are monitored that provide non-stop monitoring of SQL Server Instance and Database Status, Memory / Cache / CPU Statistics, Locks and Processes, Alert Log and Events, Database Backups and Jobs, Space Usage, Users and Roles.

In addition to real-time monitoring of performance metrics for Microsoft SQL Server, Oracle Enterprise Manager also stores the monitoring information in the management repository, thereby enabling administrators to analyze performance through various historical views (these include Real Time Refresh/Last 24 Hours/ Last 7 Days/ Last 31 Days/etc) and facilitating strategic tasks such as trend analysis and reporting.

To further aid administrators with critical tasks such as problem diagnosis, trend analysis and capacity planning, the System Monitoring Plug-in for Microsoft SQL Server includes twelve out-of-box reports, summarizing key information about SQL Server availability, performance, resource consumption and configuration.
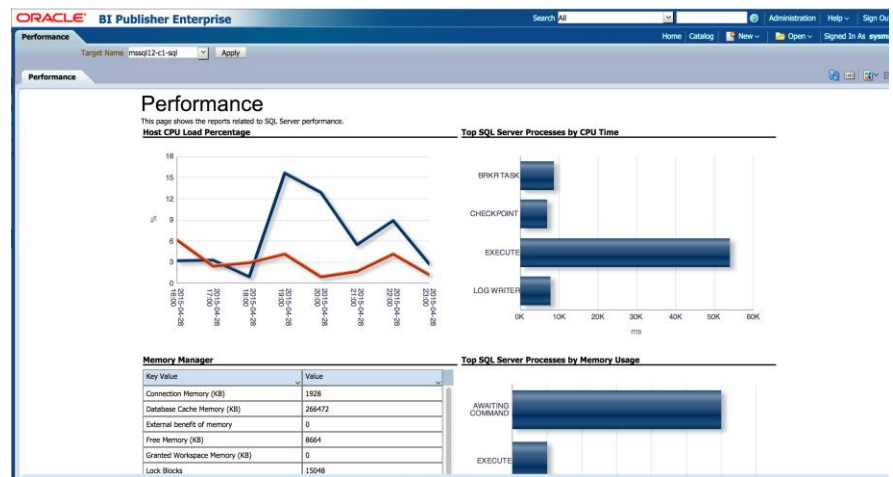
Figure 1. Microsoft SQL Performance Report

These reports are easily accessible from the SQL Server Home page in the Oracle Enterprise Manager Console and from the Business Intelligence Publisher (Enterprise Manager's powerful reporting framework), enabling administrators to schedule, share, and customize reports to fit their operations needs.
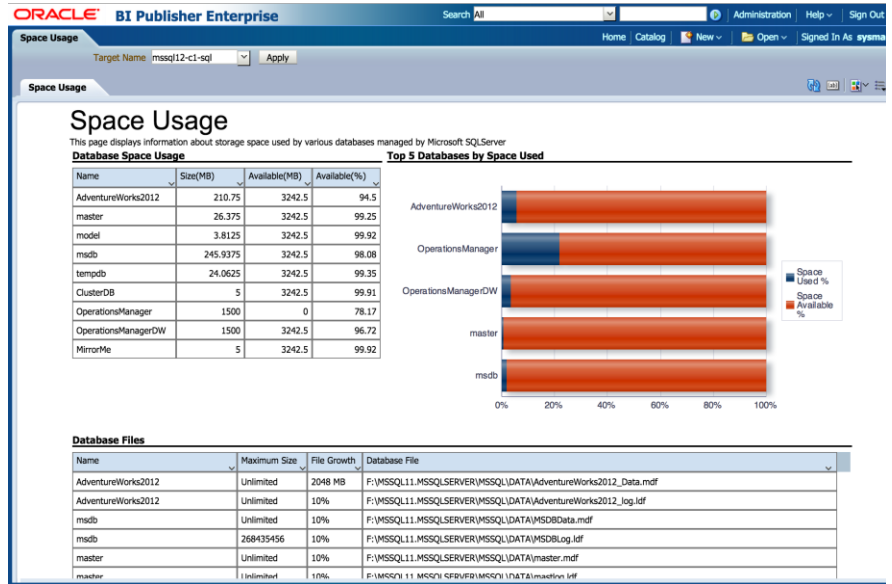
Figure 2. Microsoft SQL Space Usage Report.

RELATED PRODUCTS

Management Plug-ins

- System Monitoring Plug-in for Non-Oracle Databases
- System Monitoring Plug-in for Non-Oracle Middleware
- Configuration Management Pack for Applications

Management Connectors

Detailed information on these products is at http://www.oracle.com/enterprise-manager.

Apply Oracle Enterprise Manager's Powerful Monitoring and Event Management Features to Microsoft SQL Server

The System Monitoring Plug-in for Microsoft SQL Server leverages Oracle Enterprise Manager's powerful monitoring and event management features, thereby delivering a robust monitoring solution through automation, standardization and "manage many-as-one" approach.   Key features include:

- **Blackout Periods**: prevent unnecessary alerts from being raised during scheduled maintenance operations, such as SQL Server backup or hardware upgrade.

- **Monitoring Templates**: simplify the task of standardizing monitoring settings across the entire Microsoft SQL Server environment, by allowing administrators to specify the monitoring settings (metrics, thresholds, metric collection schedules and corrective actions) once and applying them to any number of SQL Server instances.

- **Metric Extensions**: allow administrators to collect and monitor parameters specific to their applications.

- **Corrective Actions**: ensure that routine responses to alerts are automatically executed, thereby saving administrators time and ensuring problems are dealt with before they noticeably impact users.

- **Incident Rules, Methods and Schedules**: define when and how administrators should be notified about critical problems with their applications, ensuring quicker problem resolution.

- **Groups / Systems**: significantly simplify management of large numbers of components, allowing administrators to "manage many-as-one". By combining SQL Server instances in groups, or including them in heterogeneous groups or systems, administrators can benefit from a wealth of group management features, such as ability to proactively monitor availability and alerts of all group members via the System Monitoring Dashboard.

- **Administration**: automate & schedule administrative tasks such as

starting/stopping/pausing and resuming of SQL Server instances by taking advantage of pre-packaged Enterprise Manager jobs.

- **Chargeback Functionality**: allows administrators to monitor and control IT costs by gathering data on resource use, and allocating charges for the use of these resources.

Lower Costs through Knowledge: Know What You Have and What Changed

Tracking configurations is one of the most time-consuming and difficult tasks administrators face on a daily basis. Being able to quickly view a detailed configuration snapshot, analyze historical changes and enforce standardization between systems is key to diagnostics, auditing, compliance, and making solid business decisions.

System Monitoring Plug-in for Microsoft SQL Server simplifies these tasks by automatically collecting detailed configuration information about Microsoft SQL Server, including: operating system details, clustering information, database and registry settings. This information is collected daily and stored in the management repository. In addition, Oracle Enterprise Manager automatically tracks all changes to the Microsoft SQL Server configuration, helping administrators answer key questions about what changed, who is responsible for the change, and when the change was made. System Monitoring Plug-in for Microsoft SQL Server also enables enterprise-wide configuration comparisons of SQL Server instances, allowing administrators to quickly and easily pinpoint potential differences. This helps to keep systems synchronized and to reduce "configuration drift". In addition, it simplifies investigations into why systems that are presumed to be identical, are behaving differently.

The latest release of the Plug-in for Microsoft SQL Server includes a new Compliance Standard providing the ability to monitor a target's compliance. This allows administrators to track and manage the adherence of their managed targets.

Centralize All of the Monitoring Information in a Single Console

The System Monitoring Plug-in for Microsoft SQL Server provides administrators managing Oracle systems and Microsoft SQL Server with a consolidated view of the entire enterprise, enabling them to monitor and manage all of their components from a central place. Having such an integrated tool reduces the total cost of ownership by eliminating the need to manually compile critical information from several different tools, thus streamlining the correlation of availability and performance problems across the entire set of IT components.
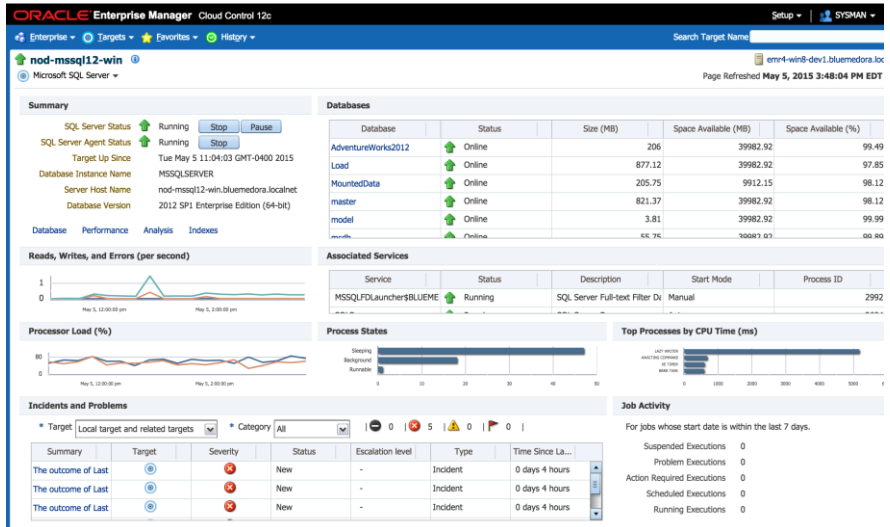
Figure 3. Microsoft SQL Target – Home Page.

In addition, the System Monitoring Plug-in for Microsoft SQL Server complements Oracle Enterprise Manager's existing support for Windows systems, providing administrators with more depth and greater ability to view Microsoft SQL Server operations directly in the context of operating system activity.

Another feature to the Plug-in for Microsoft SQL Server is the Analysis page where Administrators can view tables that show Top 5 Session Statistics or Top 5 Query Statistics. In Figure 4 below we can see that CPU Time has been selected for Top 5 Session Statistics. With this view available, administrators can quickly determine by session ID, which sessions have the highest CPU Time.   If it is found that a session is the cause of an issue, the administrator can click the Kill Session button to invoke the Kill Session Job to end the problematic session.
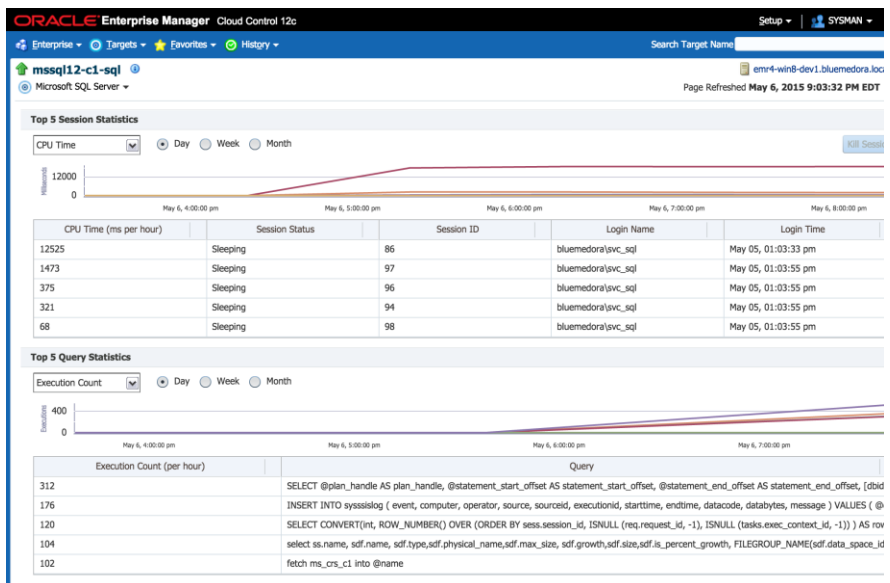
Figure 4. Microsoft SQL Target – Analysis Page.

Two additional features are the Performance and Database pages. Use the performance page to efficiently view history and trends of key performance metrics such as Process and

Connection, Memory, and SQL Execution. This page makes excellent use of Oracle Enterprise Manager's graph and charting tools to give insight into these KPI trends.
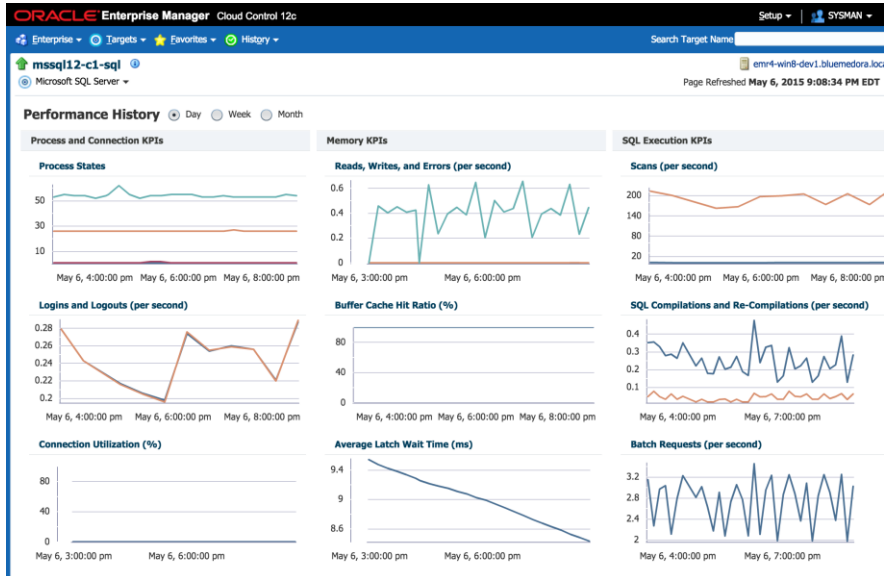
Figure 5. Microsoft SQL Target – Performance Page.

The Database page provides detailed information on the monitored Microsoft SQL Server's individual databases, their performance, and their backups. For backups, you can use this page to create new named backups for the database, schedule future backups, restore the database from a backup or delete old backups. New to the plug-in are two jobs to backup all databases and create differential backups. Easily switch between databases on the monitored instance by using the populated drop-down list of all the databases on the monitored instance.
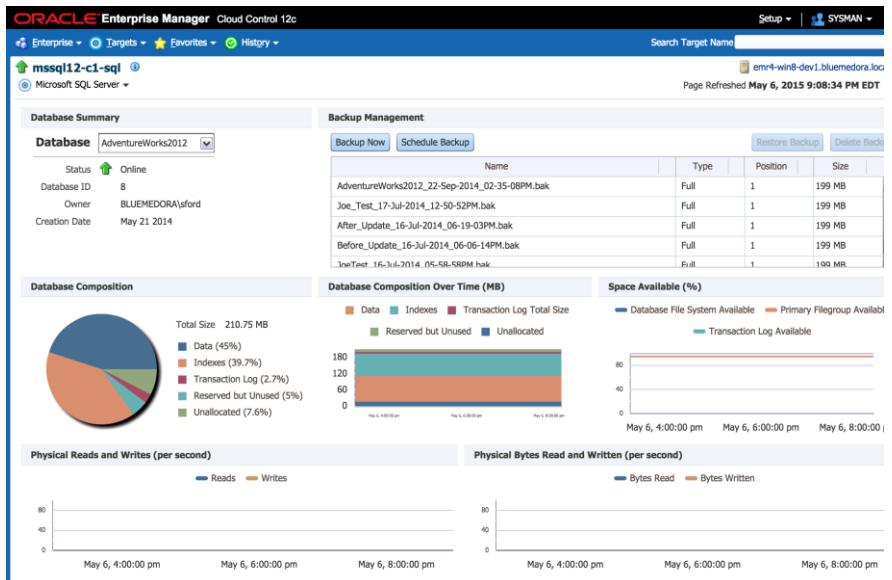
Figure 6. Microsoft SQL Target – Database Page.

Also added in this release is the new Indexes page. Utilize this page to see in depth metrics in relation to Indexes such as Index Usage, Index Fragmentation and recommended missing Indexes. Efficiently create new Indexes with the Create Indexes job, conveniently located on the page.
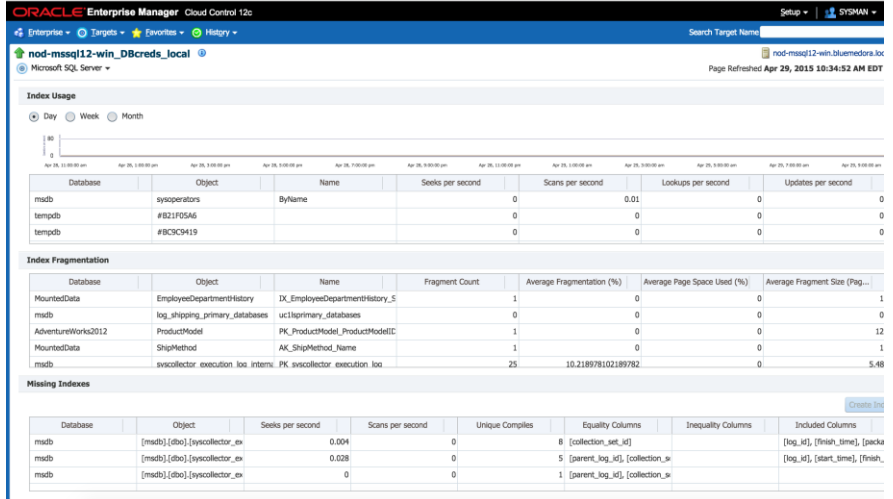
Figure 7. Microsoft SQL Target – Indexes Page.

Another way to view the new statistics from the Analysis, Performance, Indexes and Database pages is with the use of the newly added Business Intelligence Publisher Reports bundled with this plug-in. Running these reports will display graphs and details for top 5 sessions by CPU time, memory utilization, top 5 queries by execution, blocked time, and CPU time and many other statistics.

Learn More

For more information about this and Heterogeneous Management, visit

http://www.oracle.com/technetwork/oem/extensions