

Automic[®] Workload Automation

Oracle Retail: Optimize Performance and Reduce Business Risk

Overview

You are most likely reading this because you are either an Oracle Retail customer or are about to embark on an Oracle Retail implementation. As with all major application implementations, you must make a significant investment, often of several months or more, to develop a reliable and efficient batch schedule.

With Automic[®] Workload Automation, you can cut the batch schedule development and implementation time to just a few weeks, and also reduce ongoing maintenance. The result is reduced total cost of ownership (TCO).

This white paper describes how CA Technologies, A Broadcom Company, can help significantly shorten your Oracle Retail batch schedule development time. In addition, the paper describes how this Oracle Validated solution optimizes the performance of Oracle Retail so your core retail processes will run faster and be more agile.

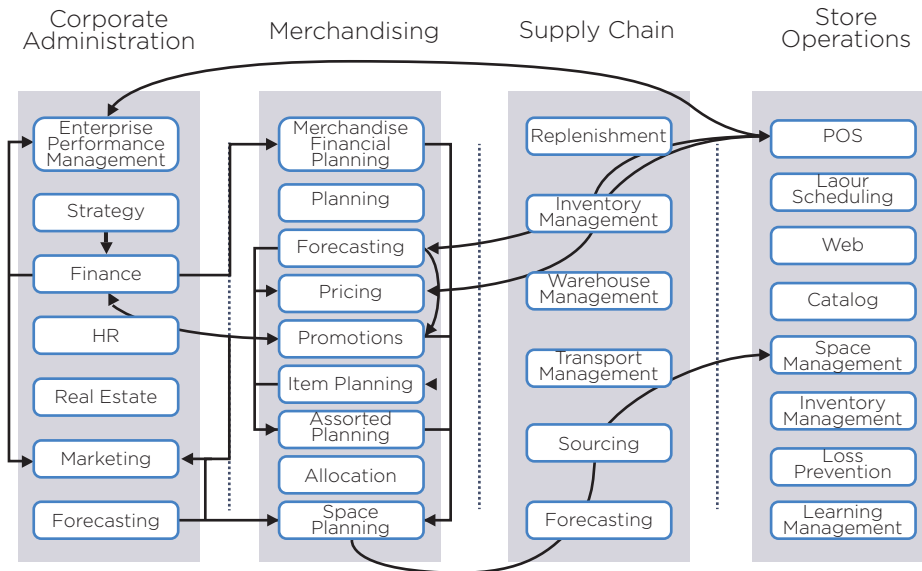
Batch Integration and Scheduling for Oracle Retail Applications

Oracle Retail's collaborative solutions help to create, manage and fulfill consumer demand and are employed extensively around the world.

CA Technologies (CA) and Oracle have worked together to develop a unique, fully supported solution for scheduling and automation that brings significant benefits to an Oracle Retail implementation and to the operation of the production retail environment. For example, CA's plug-and-play templates for scheduling processes in Merchandising Operations Management, Oracle Active Retail Intelligence, Oracle Store Inventory Management, Oracle Advanced Inventory Planning, Oracle Retail Predictive Application Server, Oracle Retail Data Warehouse, and Oracle Retail Analytics enable retailers to get these modules integrated and up and running in a matter of days, as opposed to the traditional months of development that are normally required.

Figure 1: Oracle Retail is a Complex Set of Modules that can Only be Integrated Through Batch Processing—A Process that Normally Requires Months to Set Up.

Retail Business Processes Silos



How Oracle Retail Customers Benefit from CA

Whether you are a new or existing user of Oracle Retail, a user of Oracle Retail Analytics or a point-of-sale customer, the Automatic[®] for Oracle Retail solution will help you optimize performance and reduce your total cost of ownership.

New Oracle Retail Customers

If you are new to Oracle Retail, you are no doubt embarking on a major project to improve your competitive position in the retail market. The Automatic for Oracle Retail solution from CA provides the following benefits:

- Enables you to improve the time to market of your Oracle Retail implementation
- Reduces time to market and reliability risks associated with in-house-developed solutions
- Improves the visibility and control of Oracle Retail business processes
- Manages the workload and exploits the Oracle Retail application for efficient processing
- Enables the integration of Oracle Retail with other applications
- Pays for itself during implementation alone

Existing Oracle Retail Customers

Automic Workload Automation is based on a repeatable, best-practice template. However, this template is often modified and enhanced by customers to fit their unique business requirements. If you have already implemented a traditional, script-based schedule using a legacy scheduling product, you already know:

- How long it took to build the original schedule
- How difficult it is to maintain or change the schedule
- The challenges of balancing computing resources
- The cost of downtime when trying to recover corrupt data caused by poor management of reject data
- How many people need to be involved to fix a production problem

Oracle Retail Analytics Customers

Oracle Retail Analytics is the replacement solution for the Oracle Retail Data Warehouse. As with the Oracle Retail batch solution, implementing Retail Analytics and integrating it with your other back-end applications requires extensive scripting—a task that is both expensive and time-consuming. Instead, you can save time and money implementing Oracle Retail Analytics in a matter of days by using Automic Workload Automation to get it up and running. You will gain the same operational and implementation efficiencies described previously while also eliminating custom coding errors that can cause invalid or incomplete data to be loaded into your analytics data store.

Point-of-Sale Customers

If you operate a chain of retail stores, you are fully aware that a timely and reliable point-of-sale (POS) data upload process is critical to your business. You need to easily upload data from every store in the chain to Oracle Retail. POS solutions even let you logically group stores by region, time zone or business unit, giving you granular control over your entire retail chain.

To get the maximum value from POS data, however, you need to upload it frequently. That's the only way to be sure that any decisions you make—for example, with respect to determining inventory turnaround times, replenishing inventory, marking down prices, or establishing sales or promotions—will be based on the most current data. Automic Workload Automation allows you to automate these uploads, setting whatever polling interval best meets the needs of your organization. In addition, its managed file transfer solution ensures accurate and secure POS uploads and extracts. With automation from CA, you'll have complete control of all the processes required to run and maintain a POS system, which you will in turn be able to easily integrate with your Oracle Retail processes.

Automic® One Automation Platform

The Automic One Automation Platform is unique; it is the only solution that allows you to use a single automation engine across business processes, applications, and infrastructure. When you're able to automate all aspects of your enterprise in a consistent, repeatable, auditable way, you can ensure that each of your business-critical processes work every time.

Automic for Oracle Retail

The Oracle Validated integration for Oracle Retail enables you to:

- Initiate, monitor, and manage all Oracle Retail processes. The integration also supports any custom Oracle Retail solutions.
- Take advantage of Oracle Retail's multi-threading capabilities, so you can complete your processing faster and more accurately.
- Fully automate safe restart/recovery processes, which can be applied to each thread individually.
- Extract data from Oracle Retail error logs for fast problem diagnosis.
- Automatically initiate jobs to process rejected data.
- Automatically detect and manage multiple input files to ensure that each file is received and properly processed.

Templates for Oracle Retail Batch Processing

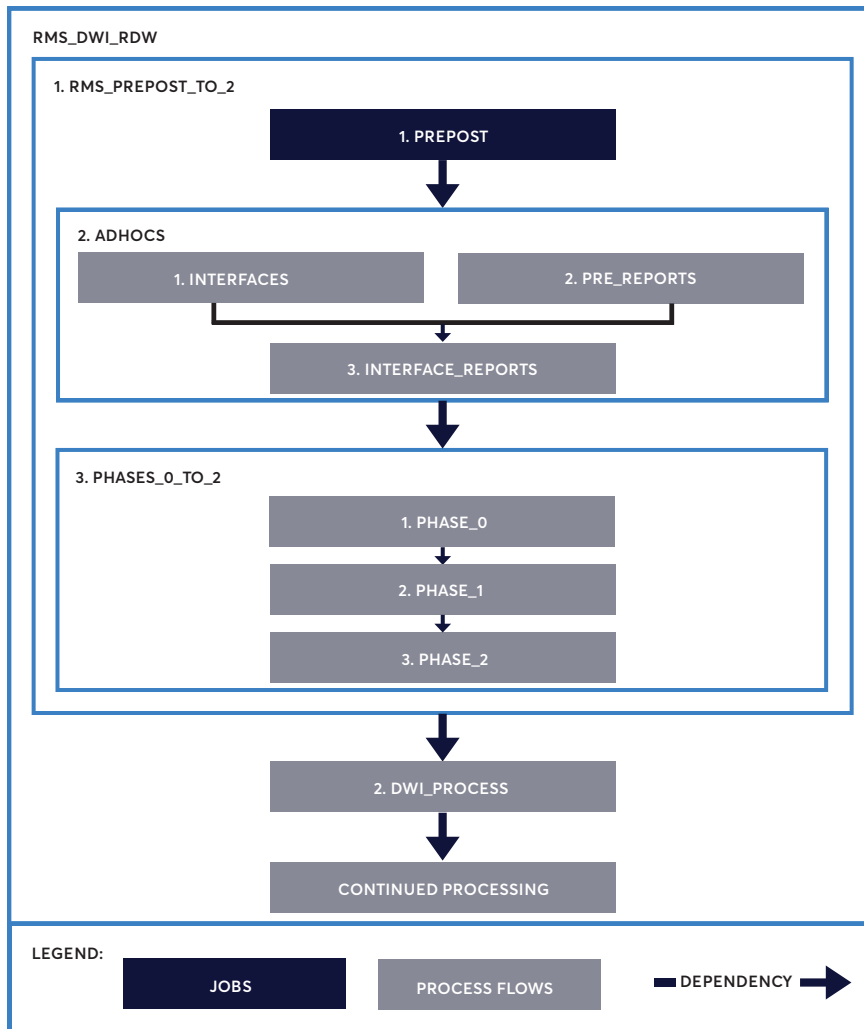
CA Oracle Retail templates are a complete set of templates enabling you to rapidly implement all the critical components in Oracle Retail, including:

- Merchandising Operations Management (MOM)
- Oracle Active Retail Intelligence (ARI)
- Oracle Store Inventory Management (SIM)
- Oracle Advanced Inventory Planning (AIP)
- Oracle Retail Predictive Application Server (RPAS)
- Oracle Retail Data Warehouse (RDW)
- Oracle Retail Analytics (RA)

The templates are initially provided as a best-practice solution from CA, but they can easily be modified to accommodate your environment. They will automatically run programs on a daily, weekly or monthly basis—or on specific dates. The templates are completely script-free, saving you time as well as reducing the risk of errors. CA Professional Services can also help you tailor the templates to meet your specific needs, providing you with customized solutions for Retail Demand Forecasting (RDF), Retail Distribution Management (RDM), and point-of-sale uploads.

[Figure 2](#) shows a subset of the Oracle Retail templates for the Retail Merchandising System (RMS), Data Warehouse Interface (DWI), and Retail Data Warehouse (RDW). As the figure shows, the templates combine functionally related Oracle Retail jobs into unified process flows, providing you with a highly visible and granular solution that simplifies control and management of what is normally a very complex process.

Figure 2: The Automatic for Oracle Retail Schedule Template Combines Functionally Related Oracle Retail Jobs Into Process Flows, Simplifying the Management of this Otherwise Complex Process.



The complete set of Automatic for Oracle Retail templates can be implemented in a just a few days, providing very useful working documents for operational and functional users throughout the implementation of the Oracle Retail solution, as well as during ongoing production support.

Each job in the process flow can be graphically arranged to accommodate your specific requirements. This granular and highly visible solution simplifies schedule operation, troubleshooting, and maintenance.

Technical Overview

This section provides additional technical details about the CA solution's architecture, templates, process execution, and more.

Oracle Retail Architecture

The Automic Event Engine will usually reside either on its own server(s) or on the main RMS server. Establishing clusters of Automic Event Engine servers gives you a highly available and scalable architecture. The data repository can reside in the main Oracle Retail instance or in a repository of your choosing.

Our solution supports agents for operating systems, databases and applications. You'll need an operating system agent wherever script processes will run. In addition, you may choose to have an operating system agent on each POS system, which will give you centralized control over all processing. You'll also need database agents wherever database or SQL procedures are executed, plus a Automic for Oracle Retail agent and any other application specific agents you may use.

Template Import/Export

The Oracle Retail and Oracle Retail Analytics templates are pre-defined schedules created in the Oracle Retail environment. CA's powerful import/export feature creates extracts of the schedule objects and makes them available to you. You can also use the import/export mechanism throughout your development lifecycle to ensure risk-free migration of the schedule from development to test and production environments.

The ability to automatically map new environment variables, such as database logins, agent names and machine names, to your existing processes saves you time and helps you avoid coding changes that can introduce errors.

Running Oracle Retail Processes

Before running any Oracle Retail process, which is an individual job in Automic Workload Automation, the following checks are performed:

- Retail threading requirements
- Retail Bookmark information
- Lock or Reject File existence
- Existence of multiple input files

Oracle Retail Multi-Threading

Given an Oracle Retail multi-threaded program, the template checks the restart tables to determine how many threads of the program should run and then runs the program once for each thread. In a situation where the user specifies the number of threads, the RE-START_CONTROL table updates and inserts one record for each thread into the RESTART_PROGRAM_STATUS table. The restart tables are automatically refreshed before programs that use restart/recovery are run.

Oracle Retail Restart/Recovery

The CA solution automatically checks the Oracle Retail restart/recovery tables. If a previous run has failed, the job will abort unless a parameter is set to force the cleanup of the restart recovery tables. Any dependents wait until the job is restarted—this logic applies to multi-threaded programs and is intended to force you to check whether you really want to run the current process and to avoid potentially corrupting data.

Automatic Scheduling for Lock or Reject Files

If lock or reject files are created, this will automatically schedule a new job, in HELD status, to process those files once the original problems are resolved. There is no need to write additional processes to check if all data has been loaded correctly. This methodology has the benefit of reducing the amount of work required to recover from a problem situation and also to provide a high level of visibility about the problem and the resolution of that problem.

Multiple Input File Detection

Usually, if more than one input file is detected, the oldest one is processed; optionally, you can be informed about the existence of multiple files and choose the next action. The very fact that Automatic Workload Automation is checking for multiple files eases the burden on operations and applications support teams to detect problems and recover potentially critical situations.

Output Files and Log Files

Output files that result from batch processes are stored in defined directories. With CA's solution, both output and log files can be viewed online and delivered to users by email. For problem determination, relevant data is extracted from the retail log files to provide only the necessary information associated with a process, rather than superfluously providing the whole log file. Notifications and associated log information are automatically sent, or the problems can be automatically fed into problem management/ ticketing systems.

Loading Data Into the Database

Both when scheduling applications and processing large amounts of data through batch application integration, Automatic Workload Automation loads the data directly into the database using standard SQL load processes, ETL tools or the Retail Integration Bus (RIB). You can switch from one data-loading approach to another with little, if any, configuration changes.

And, as new data arrives, CA can use its arrival to automatically trigger background processing. As opposed to the traditional method of just time-scheduling everything into a batch window, the process is driven when the conditions are right to do so. This approach lets you process data 24/7 as workloads permit.

Conclusion

With the Oracle Validated solution from CA you can shorten implementation time of Oracle Retail, ensure that best practices are followed and gain better visibility into and control over your Oracle Retail processing. It will:

- Significantly shorten the time required for implementation.
- Provide you with templates to ensure that your Oracle Retail processing adheres to best practices.
- Increase your organization's agility, so you can respond rapidly to changing requirements.
- Improve end-to-end visibility of all Oracle Retail processes.
- Minimize downtime through its automatic restart and recovery capabilities.
- Enhance staff productivity and improve accuracy by eliminating the need for manual intervention.
- Create processes that include and extend beyond Oracle Retail processing to integrate the solution with other enterprise software, such as Oracle E-Business Suite.

For more information, please visit ca.com/automation.

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