The PowerCenter Automation Conundrum

Create Real-Time Data Warehousing & "Agile BI" With Workload Automation

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Introduction:

In recent years, the democratization of analytics and Business Intelligence (BI) solutions has become a driving force in the growing complexity of data integration and data warehousing processes. The use of BI applications is growing exponentially, making data repositories an essential component of enterprise IT organizations.

Add in new forms of data, such as various enterprise resource planning (ERP), inventory and supply chain management (SCM), web services applications, mobile devices, cloud-based sources, Big Data and more, and it's clear just how important real-time data warehouses have become.



IT Boundaries Identified

The extract, transform and load (ETL) and data integration processes to access and integrate large volumes of data from multiple sources are becoming increasingly intricate. These complex data pathways can fail, dependencies cannot be met, systems go offline, all without the visibility into each process step. As a result, reports will be incorrect, late, or both.

While many tools exist to automate the processes used to update data stores, most have significant limitations. For example, many leading enterprise data warehousing and BI solutions come with native scheduling capabilities but these are typically limited in their respective functionality and to scheduling on only that system, leaving IT to rely on error-prone and time consuming scripting to pass data and manage dependencies across the vast array of BI and data warehousing solutions. Developing and testing a custom script or program to automate these processes can take weeks and even months.

Integrate & Manage Workflows Across Data Warehousing Environments

To solve this problem, IT process automation has become a cornerstone that allows IT to efficiently integrate and manage workflows across their data warehousing environments for improved data quality and reporting. Workload automation solutions provide a single automation solution to integrate data pathways into automated, repeatable and schedulable processes that deliver a high degree of control over all steps of the ETL and BI process. A good workload automation solution will simplify the creation of these workflows, reducing or eliminating the custom scripting and/or manual intervention that have been traditionally required to execute these processes.

Workload automation solutions should support your particular IT environment by providing crossplatform and cross-application support. Whether you operate a mix of Linux, UNIX or Windows, are using PL/SQL, Java, Web Services, databases such as Oracle or SQL Server, or OpenPGP to encrypt and decrypt tasks, an IT automation solution should be robust enough to handle it all. This should also include direct integration with many of the leading data warehousing and BI solutions on the market today and support indirect integration with other solutions via support for web services, APIs, etc.

Finally, ease of authorship of both simple and complex workflows in a script-less fashion is critical. In addition, tracking and alerting capabilities to increase efficiency, reduce errors and support enterprise objectives to allow IT staff to focus on innovation and efficiency is also important.



Make PowerCenter ETL Scheduling Simpler, Faster & More Reliable

ActiveBatch[®] Workload Automation from Advanced Systems Concepts, Inc. is a robust Enterprise Job Scheduling and Workload Automation solution that makes Informatica PowerCenter ETL scheduling simpler, faster and more reliable. The ActiveBatch Extension for Informatica PowerCenter provides production-ready Job Steps to automate PowerCenter processes and integrate them within workflows that include other applications, databases and systems, including IBM Cognos, SAP BusinessObjects Data Services, Netezza, Teradata and more.

> Integrated Jobs Library Job Steps for Informatica





ActiveBatch enhances the automation of these processes with robust scheduling and automation capabilities, including Date/Time scheduling, triggers, event automation, constraints, alerting and monitoring and more. It allows Informatica users to integrate all data pathways into automated, repeatable and schedulable processes that deliver a high degree of visibility and control over all steps in the ETL process, therefore improving data quality through enhanced scheduling capabilities that better manage the dependencies and passing of data between systems and data sources.

> Event Driven Scheduling Trigger

General	Trigg	gers->Events				
Job Properties Use Associations	Finable					
Generic Queue Properties		Label	Туре	Description		
Variables		File Trigger	File Trigger	\\serverA\Tes	st∖JobA*.txt	
 Variables Triggers Scheduling Events Constraints General Date/Time Execution General User Credentials Logging Monitoring Run Time CPU Time 					Privileges=; UserName=; ExpectedSch	
Alerts Completion Properties Completion Triggers Security	v	EmailTrigger. File Trigger Growl Trigge	r	,,	Allow Deferred Event Execut OK Cancel He	
		JMS Event Tri JMX Event Tri MSMQTrigge System Startu Twitter Trigge Web Service WMI Event Tr	igger er up Trigger er Trigger			
			ase Trigger (License ger (Licensed)	d)		



The PowerCenter Automation Conundrum: Create Real-Time Data Warehousing & "Agile BI"

> Job Alerts

Alert Type	Job/Plan Delayed in Starting	💌 Delta (Mins) 0 🚊
	Job/Plan Aborted	
Notification	Job/Plan Begins Execution	
** Noulication	Job/Plan Completed	
Description:	Job/Plan Completed In Failure	
•	Job/Plan Completed In Success	
	Job/Plan Constraint Failure	
	Job/Plan Constraint Wait (Delta)	
	Job/Plan CPU Time Overrun	
	Job/Plan CPU Time Under Run	
	Job/Plan Delayed in Starting	
	Job/Plan Elapsed Time Overrun	=
	Job/Plan Elapsed Time Under Run	
	Job/Plan Exceeded Dispatch Time	e:dt}
	Job/Plan Held	[D}]' was delayed in sta
	Job/Plan Instance Modified	iD]] was delayed in sta
	Job/Plan Instance Skipped	
	Job/Plan Logon Error	
	Job/Plan Missed Expected Trigger	
	Job/Plan On Trigger	
ەנ ر ر	Job/Plan Pending Execution	
	Job/Plan Released	
	Job/Plan Restart Postponed	
	Job/Plan Restarted	
C Job Trigger	Job/Plan State Transition: Failed to Succeeded	
Sob migger	Job/Plan Trigger Failure	
	Object Modified	
	SLA Batch Completed in Failure	T DK Cancel

For example, using ActiveBatch with Informatica PowerCenter allows a developer to create a workflow that automates the entire ETL and BI process. This workflow could be triggered based on an IT event, such as local data marts downloading a file, then running a PowerCenter ETL job to pull that data into a single repository from which a BI or reporting solution is running off of, run an analysis of that data, generate new reports and distribute them to end users via email.

By using ActiveBatch Workload Automation to centralize the integration and automation of the disparate jobs and tasks that comprise today's data warehousing and BI processes, IT organizations can better meet business demands by more seamlessly updating data warehouses and downstream reporting applications. ActiveBatch makes it easier to build these end-to-end workflows faster and more reliably, reducing IT's reliance on custom scripting, improving data quality through enhanced scheduling capabilities and improved reporting and faster time to insight for the business.



> Integrate Informatica PowerCenter and non-Informatica job scheduling processes into logical workflows without having to create custom scripts

Search Job Steps	Q	Informatica SqlData ETL						
System Administration	*	Queue	/QA/PointTests/Sales_Demo/Objects/Queues/localhost					
TaskScheduler Job		UserAccount	/QA/PointTests/Sales Demo/Objects/UserAccounts/DemoUser1					
> Text	_							
Amazon EC2	-	🔻 🔽 🏩 Backup	Database (Sql Server) 🔞					
Cognos BI	- 10 10	ServerName	TESTDBS2					
 DataStage Informatica 	-	Database	Informatica_DEV					
Cet Session Log	-	FileName	\\nas1\softwarelib\Informatica\TestFiles\NameValues_DBBackup.bak					
Ret Session Statistics		UserAccount						
3 Get Task Details			/QA/PointTests/Sales_Demo/Sales Demonstration/TargettedCapabilities/Informatic					
Cet Workflow Details		Туре	Incremental					
🥳 Get Workflow Log								
🦕 Login		🔻 🔽 🧺 Login	Continue Informatica 😒	E				
e Logout		ConnectionProperties	InformaticaConnection	2				
😹 Recover Workflow		WebServicesHubUrl	http://informatica:73 🔽 Fail Job					
🔝 Start Task		RepositoryName	AbatInformaticaRepository					
🔩 Start Workflow		UserCredentials	/QA/PointTests/Sales_Demo/Sales Demonstration/TargettedCapabilities/Informatic					
🗞 Start Workflow From Task		ServiceName	AbatIntegrationService					
🛣 Stop Task		RepositoryDomainName						
Constant Workflow		∇						
		v 📝 😪 StartWorkflow Informatic						
Netezza	-	FolderName	Test					
Oracle E-Business Suite	1	WorkflowName	SqlData_ETL					
PeopleSoft	-	RequestMode	NORMAL					
⊳ SAP	22	ConnectionProperties	<empty></empty>					
SAP BO Data Services	-	WaitCompletion	True					
▷ SCOM	-	AdvancedProperties	<empty></empty>					
▷ SCSM	20							
▷ SCVMM	-	V V GetWorkflowLog	Informatica 🔞					
SharePoint	-		-					
> Team Foundation	20	FolderName	Test					
Feradata	-	WorkflowName	SqlData_ETL					
VMware		Timeout	10	*				

The ActiveBatch Extension for Informatica PowerCenter is part of the Informatica Marketplace and has received the Informatica Seal of Approval which "gives you the confidence of knowing that you're using proven tools backed by Informatica's expertise and integrity". The ActiveBatch Extension for Informatica PowerCenter is separately licensed as part of Integrated Jobs Library.



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Interested in discussing your IT Automation Strategy? Please contact Advanced Systems Concepts, Inc. to schedule a time to discuss your organization's requirements. <u>Learn More or Get Started Today!</u>

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