



# IT AUTOMATION Without Boundaries

ActiveBatch®  
Enterprise Job Scheduling  
& Workload Automation

Integration for Microsoft®

**Microsoft Technologies**

Microsoft Active Directory  
Microsoft Exchange Server  
Microsoft SharePoint  
Microsoft SQL Server  
Microsoft Windows PowerShell

**Microsoft System Center**

Operations Manager (SCOM)  
Service Manager (SCSM)  
Virtual Machine Manager (SCVMM)



**Microsoft** Partner

Silver Independent Software Vendor (ISV)

# ActiveBatch® and Microsoft®

## IT Automation Without Boundaries<sup>SM</sup>



### General Overview:

Advanced Systems Concepts, Inc. is a leader in the development of Workload Automation and Enterprise Job Scheduling software. Our software simplifies the automation and integration of business and IT operational processes across single or compound workflows that can share data and manage dependencies. Automating as well as integrating workflows improves resource utilization, ensures higher service levels and reduces the overall cost of operations.

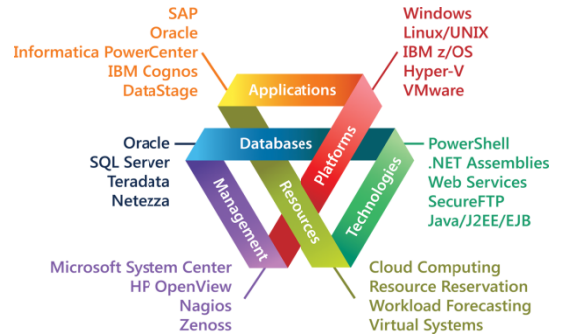
ActiveBatch® Enterprise Job Scheduling & Workload Automation reduces the complex challenges of today's IT organizations by offering a single point of control that integrates systems never designed to work cooperatively. These systems include applications, databases and technologies and their business and IT processes are then unified into end-to-end workflows.

ActiveBatch supports "Script Free" integration that includes web services, stored procedures as well as extensions for mission-critical applications, such as:

- SAP
- Informatica PowerCenter
- IBM DataStage
- IBM Cognos BI
- SQL Server
- Oracle

and many more using events for timely initiation of these processes.

ActiveBatch® Job Scheduling and Workload Automation simplifies the creation and automation of IT and business processes within workflows faster and more reliably than traditional processes such as custom scripting or using multiple "closed" scheduling systems to manage distributed and diverse processes. Through ActiveBatch's centralized approach it has never been easier for workflow designers to pass data and manage dependencies across disparate systems that can include applications, databases and technologies into end-to-end workflows.



ActiveBatch is an industry leading cross-platform solution that is tightly integrated with Windows technology making it the perfect Job Scheduling system for organizations that support Microsoft Windows and require key integrations with non-Windows systems. ActiveBatch, for example, leverages the Microsoft Windows Security model offering the option for users to utilize their current user accounts and groups from day one. ActiveBatch supports SQL Server as well as Oracle, WMI, MSMQ, and many other Windows technologies that are utilized within today's Data Centers.

The ActiveBatch Integrated Jobs Library provides access to templated Job Steps for:

- Active Directory
- SharePoint
- System Center: Operations Manager
- PowerShell
- SQL Server
- Web Services
- Service Manager
- Team Foundation Server (TFS)
- Task Scheduler
- Stored Procedures
- Virtual Machine Manager
- Exchange
- .Net Assemblies
- and more . . .

ActiveBatch's event architecture removes the need to manually manage tasks across servers and remove the wait time between jobs so that job streams or plans can be run upon completion, success or failure, for improved service levels. ActiveBatch supports a wide range of event triggers that include Files, Email, Web Services, MSMQ and many more.

ActiveBatch is the ideal and affordable choice for centralizing the automation of all your IT operational and business processes. Get started with ActiveBatch today and request additional information, such as a fully functional Proof of Concept that includes complete access to our industry leading technical support team.

### > PARTNERSHIP

Advanced Systems Concepts, Inc. is a Microsoft Silver Independent Software Vendor (ISV). ActiveBatch allows Microsoft users to easily build mixed workloads by coupling them with databases, applications and advanced technologies for improved business process automation.

Visit Advanced Systems Concepts, Inc. at the Microsoft Pinpoint website, at the Microsoft System Center Marketplace website or at www.ActiveBatch.com for additional information.





## Automate and Manage Active Directory Processes for Increased Efficiency with ActiveBatch®

### >PROBLEM

With today's dynamic business environments, frequent adjustments and modifications must be made to objects, users and groups within Active Directory. Executing and managing these repetitive tasks is not only time-consuming, but also inefficient when network administrators must rely on custom scripting. New tools with advanced automation and scheduling capabilities are needed to efficiently automate repetitive Active Directory tasks, saving time for network administrators, reducing errors and streamlining IT operations.

### >SOLUTION

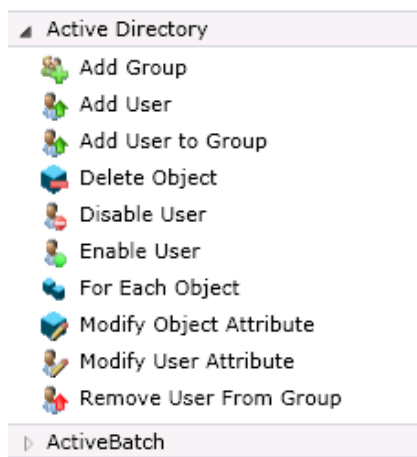
ActiveBatch® Enterprise Job Scheduling and Workload Automation allows IT workers to automate and manage many of the repetitive and time-consuming administrative tasks associated with [Active Directory management](#) including adding users to groups, deleting objects or users and modifying attributes associated with various objects and users.

ActiveBatch provides Active Directory users with job scheduling capabilities that include constraints, event triggers, monitoring, alerts and audits. The Integrated Jobs Library provides over 100 defined Job Steps in an easy to use drag-and-drop interface that simplifies workflow creation and integration all without the need for custom scripting. This allows for the automation and execution of Active Directory functions within workflows that integrate other applications, databases and processes.

### >EXAMPLE

Upon the change in status of a current employee you can automate the process of promoting that user account, adding them to the appropriate new groups, modifying security settings and then updating information in a database such as SQL Server. By using ActiveBatch as a centralized console and single point of control, IT workers can efficiently manage and automate tasks to save time and reduce human error.

Microsoft Active Directory 2010  
ActiveBatch Version 8 Service Pack 3 and above



### ActiveBatch® Integrated Jobs Library Job Steps for Microsoft Active Directory

The [ActiveBatch Integrated Jobs Library](#) simplifies the development and implementation of single and/or compound business and IT processes into unified workflows using simple drag-and-drop templated Job Steps.

ActiveBatch® Integrated Job Steps for Microsoft Active Directory Workflow  
 As displayed in the ActiveBatch Integrated Jobs Library

<input checked="" type="checkbox"/> <b>AddUser</b> <span style="float: right;">Active Directory <span>✕</span></span>	
Domain	advsyscon.com
New Account Name	\${User}
New Account Password	\${Pass}
Credentials	<Optional>
Organizational Unit	ASCI User Accounts
Attributes	<empty>
▼	
<input checked="" type="checkbox"/> <b>AddUserstoGroup</b> <span style="float: right;">Active Directory <span>✕</span></span>	
Domain	advsyscon.com
Account Name	\${User}
Group Name	AB_TEST_Global_group
Credentials	<Optional>
▼	
<input checked="" type="checkbox"/> <b>ModifyUserAttribute</b> <span style="float: right;">Active Directory <span>✕</span></span>	
Domain	advsyscon.com
Account Name	\${User}
Credentials	<Optional>
Attributes	<ADAttributes>
ADAttribute	ADAttribute
Name	
Value	
▼	
<input checked="" type="checkbox"/> <b>CreateMailbox</b> <span style="float: right;">Microsoft Exchange <span>✕</span></span>	
Exchange Version	Exchange2007
New Mailbox Attributes	ExchangeMailbox
Display Name	
User Principal Name	
Password	
Database Name	
▼	
<input checked="" type="checkbox"/> <b>DisableMailbox</b> <span style="float: right;">Microsoft Exchange <span>✕</span></span>	
Exchange Version	Exchange2007
Mailbox Name	
▼	
<input checked="" type="checkbox"/> <b>DisableUser</b> <span style="float: right;">Active Directory <span>✕</span></span>	
Domain	advsyscon.com

> **BENEFITS**

With ActiveBatch, you can easily automate Runbook and IT operations and integrate these procedures into other business and operational processes all through a single point of control.

**Automate** the repetitive, routine tasks associated with Active Directory management

**Save time** for network administrators and reduce human errors through the automation of tasks

**Streamline IT operations** with Job Steps that are able to make complex attribute modifications to multiple Active Directory objects using different parameters from multiple sources

**Build workflows** that integrate Active Directory with other technologies, applications without the need for custom scripting

> **ABOUT MICROSOFT ACTIVE DIRECTORY**

Microsoft Active Directory helps you manage corporate identities, credentials, information protection, system and application settings through the following technologies. Visit [www.microsoft.com](http://www.microsoft.com).



ActiveBatch® Integrated Jobs Library Job Steps for Microsoft Active Directory  
 Scan this QR Code to learn more about ActiveBatch Enterprise Job Scheduling and Workload Automation Job Steps for Microsoft Active Directory.

# ActiveBatch® Integrated Jobs Library Job Steps for Microsoft® Exchange Server

IT Automation Without Boundaries<sup>SM</sup>



## Automate and Integrate Microsoft Exchange Tasks for Improved Performance and Control with ActiveBatch®

### >PROBLEM

With today's dynamic business environments, system administrators are often required to modify, add and delete mailboxes and distribution groups within Microsoft Exchange. For those who manage Microsoft Exchange through the use of custom scripts, the job has become increasingly time-consuming and inefficient as requirements change. New solutions that provide users with advanced automation and scheduling capabilities are needed for administrators to efficiently keep their organizations running smoothly and successfully.

### >SOLUTION

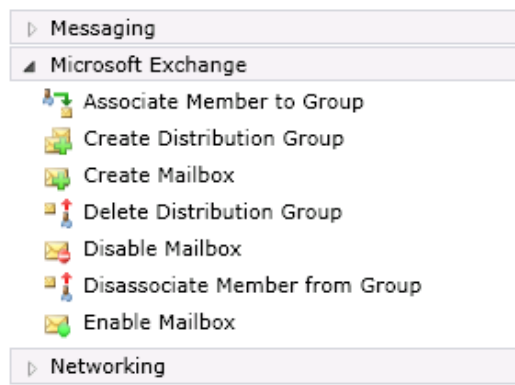
With ActiveBatch® Enterprise Job Scheduling and Workload Automation, IT operators can automate and manage critical [Microsoft Exchange](#) tasks such as creating and enabling mailboxes and distribution groups, associating members to specific distribution groups and deleting or disabling mailboxes and distribution groups.

Users of Microsoft Exchange can further benefit by using ActiveBatch Job Scheduling capabilities to automate the execution of Microsoft Exchange jobs within workflows that integrate other applications, databases and processes. For example, filling in a web form for human resources can trigger an ActiveBatch workflow to automate the process of enabling or disabling mailboxes, removing or adding people to the correct distribution list and changing information in a specific database or document. The Integrated Jobs Library provides over 100 production-ready Job Steps in an easy to use drag-and-drop interface allowing system administrators the ability to automate many of the Runbook and administrative tasks without having to rely on resource-intensive and error-prone custom scripting.

### >EXAMPLE

When human resource personnel initiate contact information for a new employee, ActiveBatch can automate the process of creating and enabling a new mailbox within Microsoft Exchange and assigning the new employee to the proper group. ActiveBatch automation saves time, reduces human error and makes daily administrative activities easier.

Microsoft Exchange Server 2010  
ActiveBatch Version 8 Service Pack 3 and above



### ActiveBatch® Integrated Jobs Library Job Steps for Microsoft Exchange Server

The [ActiveBatch Integrated Jobs Library](#) simplifies the development and implementation of single and/or compound business and IT processes into unified workflows using simple drag-and-drop templated Job Steps.

ActiveBatch® Integrated Job Steps for Microsoft Exchange Server Workflow  
As displayed in the ActiveBatch Integrated Jobs Library

▼ <input checked="" type="checkbox"/> <b>AddUser</b> <span style="float: right;">Active Directory <input type="button" value="x"/></span>	
Domain	advsyscon.com
New Account Name	\${User}
New Account Password	\${Pass}
Credentials	<Optional>
Organizational Unit	ASCI User Accounts
Attributes	<empty>
▼	
▼ <input checked="" type="checkbox"/> <b>AddUserstoGroup</b> <span style="float: right;">Active Directory <input type="button" value="x"/></span>	
Domain	advsyscon.com
Account Name	\${User}
Group Name	AB_TEST_Global_group
Credentials	<Optional>
▼	
▼ <input checked="" type="checkbox"/> <b>ModifyUserAttribute</b> <span style="float: right;">Active Directory <input type="button" value="x"/></span>	
Domain	advsyscon.com
Account Name	\${User}
Credentials	<Optional>
Attributes	<ADAttributes>
ADAttribute	ADAttribute
Name	
Value	
▼	
▼ <input checked="" type="checkbox"/> <b>CreateMailbox</b> <span style="float: right;">Microsoft Exchange <input type="button" value="x"/></span>	
Exchange Version	Exchange2007
New Mailbox Attributes	ExchangeMailbox
Display Name	
User Principal Name	
Password	
Database Name	
▼	
▼ <input checked="" type="checkbox"/> <b>DisableMailbox</b> <span style="float: right;">Microsoft Exchange <input type="button" value="x"/></span>	
Exchange Version	Exchange2007
Mailbox Name	
▼	
▼ <input checked="" type="checkbox"/> <b>DisableUser</b> <span style="float: right;">Active Directory <input type="button" value="x"/></span>	
Domain	advsyscon.com

> BENEFITS

With ActiveBatch, you can easily automate Runbook and IT operations and integrate these procedures into other business and operational processes all through a single point of control.

**Automate** the repetitive tasks associated with Microsoft Exchange management

**Save time** for network administrators and reduce human errors through the automation of tasks

**Build workflows** that integrate Microsoft Exchange Server with other technologies, applications, and platforms without the need for custom scripting

> ABOUT MICROSOFT EXCHANGE SERVER

Microsoft Exchange Server is built to deliver the enterprise-grade security and reliability that businesses require, Microsoft Exchange provides email, calendar and contacts on your PC, phone and web browser. Visit [www.microsoft.com](http://www.microsoft.com).



ActiveBatch® Integrated Jobs Library  
Job Steps for Microsoft Exchange Server  
Scan this QR Code to learn more about  
ActiveBatch Enterprise Job Scheduling  
and Workload Automation Job Steps for  
Microsoft Exchange Server.





## Improve Productivity and Automate Microsoft SharePoint Jobs and Processes with ActiveBatch®

### >PROBLEM

With today's growing business demands, the management, scaling and provisioning of Web technologies and infrastructure is becoming increasingly complex and involves systems and technologies across the enterprise. As a result, users of Microsoft SharePoint are now being required to execute more advanced SharePoint scheduling in addition to process and system integration, workflow automation and more. Unfortunately, Microsoft SharePoint's Timer Job service provides only limited Date/Time Scheduling capabilities and requires custom scripting in order to run more complex, event-based processes involving SharePoint tasks. A more advanced, centralized scheduling and automation solution is required.

### >SOLUTION

The [ActiveBatch® Extension for SharePoint](#) allows users to automate the execution of critical SharePoint tasks and jobs within ActiveBatch's centralized console, including running backups, copy, creating, deleting or restoring SharePoint objects and more. ActiveBatch goes beyond Date/Time Scheduling and provides SharePoint developers with more advanced scheduling capabilities to schedule and execute SharePoint tasks based on a wide range of event triggers including e-mail triggers, file events, database triggers, Web Services, PowerShell and more.

In addition to SharePoint, ActiveBatch also provides production ready Job Steps for other Microsoft and non-Microsoft technologies, including Active Directory and Exchange, SQL Server, Oracle and others to allow users to construct workflows that automate and integrate SharePoint tasks with other applications and technologies across the enterprise. The result is being able to use ActiveBatch as a single automation solution to automate all of your Runbook and IT administrative processes, business processes and more from a centralized solution.

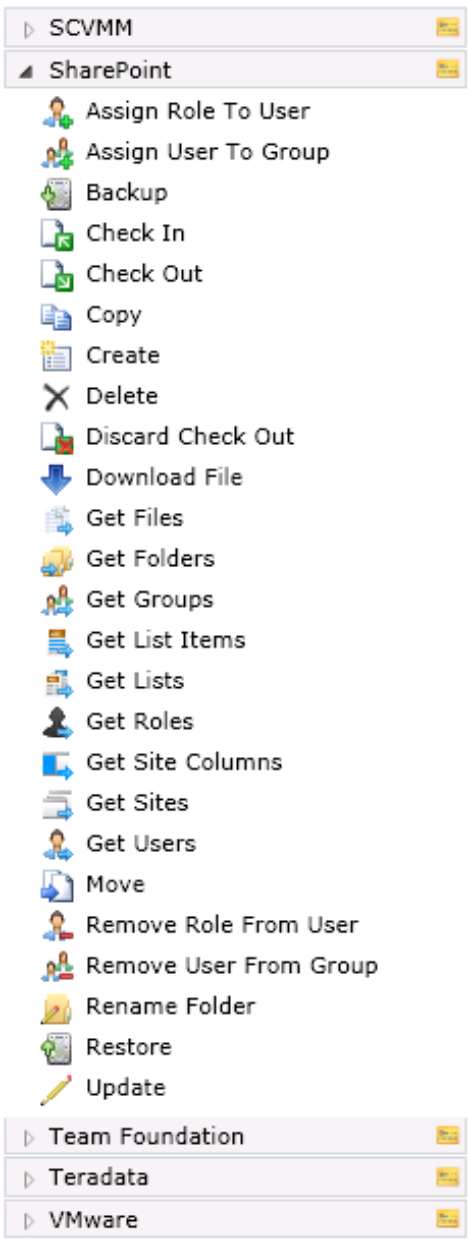
### >EXAMPLE

Construct a workflow that automatically uploads a Crystal Report from a SQL database, checks it into SharePoint as a document and notifies users of the new document.

Microsoft SharePoint Server 2010  
ActiveBatch Version 8 Service Pack 3 and above

### ActiveBatch® Extension for Microsoft SharePoint Jobs Library Job Steps

The [ActiveBatch Integrated Jobs Library](#) simplifies the development and implementation of single and/or compound business and IT processes into unified workflows using simple drag-and-drop templated Job Steps.



ActiveBatch® Extension for Microsoft SharePoint Server Workflow  
As displayed in the ActiveBatch Integrated Jobs Library

Job													
<b>Queue</b>	/QA/Objects/Queues/Windows/JobQ1												
<b>UserAccount</b>	/QA/Objects/UserAccounts/Windows/User												
<div style="border: 1px solid #ccc; padding: 5px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <span>▼ <input checked="" type="checkbox"/> <b>CrystalReport</b></span> <span>Reporting ✕</span> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td><b>ConnectionString</b></td><td></td></tr> <tr><td><b>Report</b></td><td></td></tr> <tr><td>Parameters</td><td></td></tr> <tr><td>OutputFormat</td><td>Excel97</td></tr> <tr><td>Credentials</td><td>&lt;Optional&gt;</td></tr> <tr><td>OutputFile</td><td></td></tr> </table> </div>		<b>ConnectionString</b>		<b>Report</b>		Parameters		OutputFormat	Excel97	Credentials	<Optional>	OutputFile	
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<b>Report</b>													
Parameters													
OutputFormat	Excel97												
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<b>Item To Create</b>	<empty>												
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<div style="border: 1px solid #ccc; padding: 5px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <span>▶ <input checked="" type="checkbox"/> <b>CheckIn</b></span> <span>SharePoint ✕</span> </div> </div>													
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<div style="border: 1px solid #ccc; padding: 5px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <span>▼ <input checked="" type="checkbox"/> <b>Create</b></span> <span>SharePoint ✕</span> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td><b>SharePoint Server</b></td><td></td></tr> <tr><td><b>Item To Create</b></td><td>ListItem</td></tr> <tr><td><b>List Name</b></td><td></td></tr> <tr><td><b>Fields</b></td><td>&lt;empty&gt;</td></tr> <tr><td>Site</td><td></td></tr> <tr><td>User Account</td><td>&lt;Optional&gt;</td></tr> </table> </div>		<b>SharePoint Server</b>		<b>Item To Create</b>	ListItem	<b>List Name</b>		<b>Fields</b>	<empty>	Site		User Account	<Optional>
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<b>Item To Create</b>	ListItem												
<b>List Name</b>													
<b>Fields</b>	<empty>												
Site													
User Account	<Optional>												

> BENEFITS

Improve SharePoint scheduling that includes event automation to expand SharePoint job scheduling beyond just Date/Time.

Save time and reduce errors for SharePoint developers by reducing your reliance on custom scripting.

Streamline IT operations and improve IT service levels by constructing ActiveBatch workflows that integrate SharePoint processes across a broad range of other IT applications, systems and processes.

> ABOUT MICROSOFT SHAREPOINT

Microsoft SharePoint makes it easier for people to work together. Using SharePoint 2010, you can set up Web sites to share information with others, manage documents from start to finish and publish reports to help everyone make better decisions.

Visit [www.microsoft.com](http://www.microsoft.com).



ActiveBatch® Integrated Jobs Library  
Job Steps for Microsoft SharePoint  
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ActiveBatch Enterprise Job Scheduling  
and Workload Automation Job Steps for  
Microsoft SharePoint.



IT Automation Without Boundaries<sup>SM</sup>



## Improve Microsoft SQL Server Scheduling with ActiveBatch® Enterprise Job Scheduling and Workload Automation

### >PROBLEM

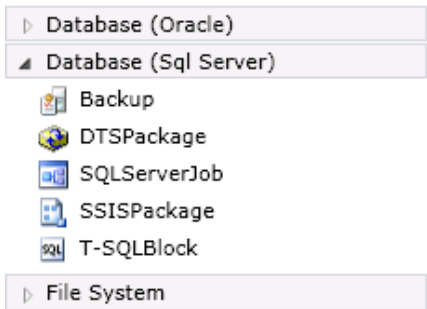
With the increasing complexity of today's IT environments, businesses are looking to incorporate and integrate Microsoft SQL Server functions as a part of greater workflows that contain both SQL Server and non-SQL Server systems. Without an enterprise-wide job scheduling solution in place, system and database administrators are bounded by the limited scheduling capabilities inherent to SQL Server, for example, the ability to execute workflows across SQL Server machines (sometimes referred to as "Chaining"). As these jobs and dependency requirements become more complex, they also become harder to manage and the custom scripts become more time-consuming and expensive to develop and maintain. New tools are needed to easily and efficiently automate and schedule SQL Server functions as a part of greater, more complex workflows while saving time for users of SQL Server and reducing the need for custom scripting.

### >SOLUTION

ActiveBatch® Enterprise Job Scheduling and Workload Automation supports the creation of end-to-end workflows that incorporate and integrate [Microsoft SQL Server](#) functions as job steps within workflows. Among the SQL Server functions that are included with each ActiveBatch Job Scheduler system are:

- Backup
- SQL Server Job
- T-SQL Block
- DTS Package
- SQL Server Report
- Stored Procedures
- SSIS Package

ActiveBatch® Integrated Jobs Library  
Job Steps for Microsoft SQL Server  
The [ActiveBatch Integrated Jobs Library](#)  
simplifies the development and  
implementation of single and/or  
compound business and IT processes  
into unified workflows using simple  
drag-and-drop templated Job Steps.



SQL Server's scheduling functions are extended by ActiveBatch advanced scheduling capabilities that include constraints (or dependencies), monitoring, alerting, auditing and more. Job Steps within the Integrated Jobs Library allow users to incorporate operations such as FTP, SFTP, FTPS or even Web Services into workflows by coupling the business execution logic found in SQL Server with the robust framework that ActiveBatch has to offer.

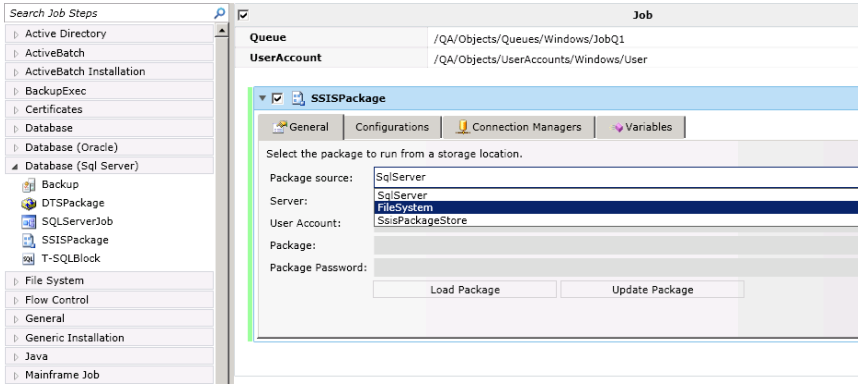
ActiveBatch scheduling capabilities can be incorporated in the execution of SQL Server jobs on the server where they are maintained for the utmost flexibility and performance, or on other systems running the SQL Server Client. In addition, ActiveBatch gives the designer a choice between agent and "agent-less" access to the SQL Server systems for invoking the SQL Server task, and incorporating these tasks into end-to-end workflows that include other systems.

ActiveBatch supports a variety of reporting needs for today's IT organizations and users including support for packages like SQL Server Reporting, Crystal Reports and more to report on data in both list and graphical format allowing for improved analysis and better decision making.

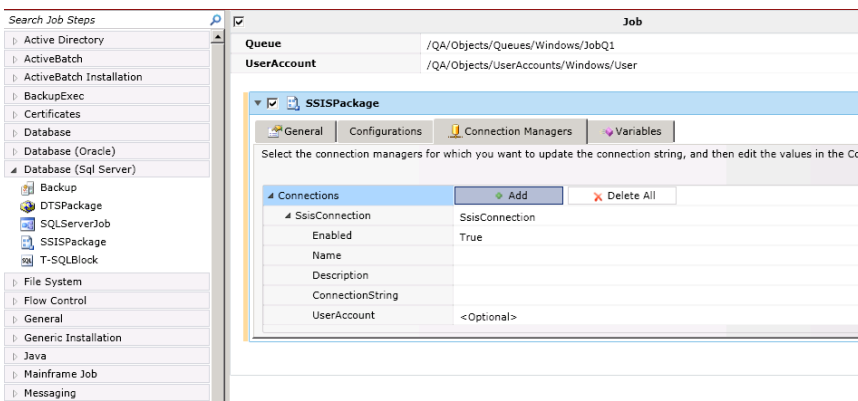
Microsoft SQL Server  
ActiveBatch Version 7 and above

ActiveBatch® Integrated Job Steps for Microsoft SQL Server Workflow  
 As displayed in the ActiveBatch Integrated Jobs Library

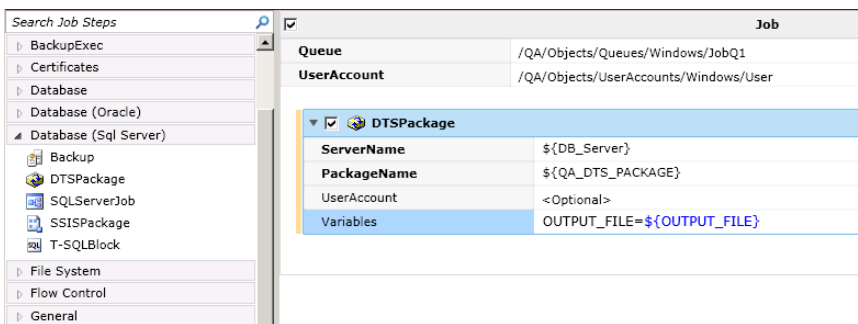
SQL Server Job Step/SSIS Package



SQL Server Job Step/SSIS Package



SQL Server Jobs Using Variables



> **BENEFITS**

SQL Server users can now receive the full benefit from ActiveBatch's ability to support:

**Single point of scheduling** to easily integrate SQL Server jobs with other scripts and applications all managed through the ActiveBatch job scheduler.

**Job chaining** across multiple SQL Server systems giving operators the ability to communicate and manage multiple SQL Server jobs.

**Pass information** from SQL Server databases to other servers, databases, or applications.

**Improved reliability** through ActiveBatch non cluster failover, checkpoint restarts, and workload balancing.

**Integrating File, Resource, and Variable Constraints** with SQL jobs, DTS and SSIS Packages, to reduce errors and ensure that data is in fact valid.

**Customizable and flexible alerting** for SQL server jobs finally give organizations peace of mind knowing that their data will be up to date each and every day.

ActiveBatch can help your organization improve the integration of SQL Server with other jobs, scripts and applications into workflows that has been proven to reduce errors by eliminating complex scripting, improve service levels and allowing for a reduced cost of operations through centralized and integrated control of disparate and disconnected systems and applications.

> **ABOUT MICROSOFT SQL SERVER**

Microsoft SQL Server it is a software product whose primary function is to store and retrieve data as requested by other software applications, be it those on the same computer or those running on another computer across a network. Visit [www.microsoft.com](http://www.microsoft.com).



ActiveBatch® Integrated Jobs Library  
 Job Steps for Microsoft SQL Server  
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 ActiveBatch Enterprise Job Scheduling  
 and Workload Automation Job Steps for  
 Microsoft SQL Server.



## Automate and Integrate PowerShell Scripts with ActiveBatch® Enterprise Job Scheduling and Workload Automation

### >PROBLEM

Microsoft PowerShell is the de facto standard scripting language for the automation and administration of systems and applications on Microsoft Windows. For IT professionals and programmers who use PowerShell to execute various tasks throughout an organization several major issues remain:

- How are these scripts triggered for execution?
- Is there a way to determine whether they have executed properly?
- Is there a way to establish a relationship between different but related PowerShell scripts?

### >SOLUTION

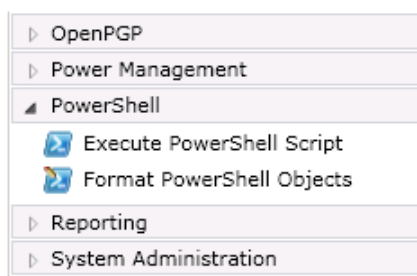
ActiveBatch® Job Scheduling and Workload Automation provides integration and automation capabilities for PowerShell scripts. With ActiveBatch you can trigger script execution across a wide variety of events (e.g. file, email, web services, etc.) including business date/time, create workflows and ensure that these workflows execute reliably across your entire enterprise. With ActiveBatch's Integrated Jobs Library you can use the templated, drag-and-drop Job Steps to [integrate PowerShell](#) scripts and cmdlets without the need for custom script creation. This creates the best of both worlds in that you can avoid scripting entirely when needed.

ActiveBatch provides object-level integrated support for PowerShell and offers object collection passing from one Job Step to another, providing users with improved integration and execution of PowerShell scripts. By leveraging PowerShell within the ActiveBatch environment, users can take advantage of more than 100 production-ready Job Steps to incorporate PowerShell scripts within workflows that contain other important business and/or administrative functionality. As PowerShell scripts are executed within the context of an ActiveBatch job, they can be enhanced by all the features of that object, including constraints, resource management, date/time or event based triggers and more.

### >EXAMPLE

Instead of manually triggering a PowerShell script to take a server offline, run an update and wait for it to complete, and then reboot the server for each server in an organization, ActiveBatch can automate this process. By using the PowerShell script(s) in a workflow, ActiveBatch will automatically execute the PowerShell script for each server called, based on the parameters indicated.

Microsoft Windows PowerShell 1, 2, 3  
ActiveBatch Version 8 Service Pack 3 and above



### ActiveBatch® Integrated Jobs Library Job Steps for Microsoft Windows PowerShell

The [ActiveBatch Integrated Jobs Library](#) simplifies the development and implementation of single and/or compound business and IT processes into unified workflows using simple drag-and-drop templated Job Steps.

[www.ActiveBatch.com](http://www.ActiveBatch.com)

ActiveBatch® Integrated Job Steps for Microsoft Windows PowerShell Workflow  
 As displayed in the ActiveBatch Integrated Jobs Library

Job2	
Name	Value
Queue	/QA/Objects/Queues/Windows/CheckQ1
UserAccount	/QA/Objects/UserAccounts/Windows/User
<b>ForEachValue</b>	
Name	Value
List	Tristan;Luna;Zeus;Libra;Pieces
Separator	;
ContextName	Server
<b>ExecutePowerShellScript</b>	
Name	Value
Machine	.
Script	\$MainServer = Get-Server %{Server}
InputObject	\$MainServer = Get-Server %{Server}
InputObjects	\$MainServer.SetOffline()
Implicit Remote	StartUpdate(%{Server})
Imported Command Properties	\$MainServer.SetOnline()
PowerShell Console File	
Format Output Objects	
No profile	

> BENEFITS

ActiveBatch provides users with a single, centralized viewpoint for the integration and management of all scripting languages within an organization.

- Automate the triggering of PowerShell scripts to ensure workflows are executed reliably, improving efficiency throughout the organization
- Integrate PowerShell scripts within jobs and processes that span across various databases, applications and technologies of your IT environment
- Improve control and flexibility of workflows with event triggers, monitoring, alerts, audits and more

> ABOUT MICROSOFT WINDOWS POWERSHELL

Windows PowerShell is a task-based command-line shell and scripting language designed especially for system administration. Built on the .NET Framework, Windows PowerShell helps IT professionals and power users control and automate the administration of the Windows operating system and applications that run on Windows. Built-in Windows PowerShell commands, called *cmdlets*, let you manage the computers in your enterprise from the command line. Visit [www.microsoft.com](http://www.microsoft.com).



ActiveBatch® Integrated Jobs Library  
 Job Steps for Microsoft Windows PowerShell  
 Scan this QR Code to learn more about  
 ActiveBatch Enterprise Job Scheduling  
 and Workload Automation Job Steps for  
 Microsoft Exchange Server.

ActiveBatch® Integrations for  
Microsoft® System Center

## IT Automation Without Boundaries<sup>SM</sup>

ActiveBatch® is a [centralized automation engine](#) that brings all of your IT processes and automation requirements into a single and unified framework, including Job Scheduling, Workload and Runbook Automation, Business Process Automation and more.

ActiveBatch integration with the [Microsoft System Center suite](#) of products offers Data Center and IT Professionals the ability to easily develop and automate workflows and IT processes. Operations Manager can be used to monitor critical workflows, processes and services within the ActiveBatch system, including Microsoft Windows and non-Windows systems.

ActiveBatch's integration with [Service Manager](#) allows a workflow failure to immediately raise an Incident Request, without manual intervention, that can be easily assigned and managed in order to improve accuracy of the incident, and reduce time to response and ultimate resolution.

ActiveBatch, using [Virtual Machine Manager](#), offers access to defined Job Steps to manage Virtual systems (e.g. add, delete, clone, etc.) and can be used in conjunction with ActiveBatch's resource reservation system for the rapid provisioning of Virtual or Cloud based systems, without scripting or coding.

ActiveBatch offers today's IT organization the premier solution to develop and automate processes and workflows from within a single console that has been proven to reduce the number of errors from manual processing or scripting, [improve IT service levels and reduce the cost of operations](#).



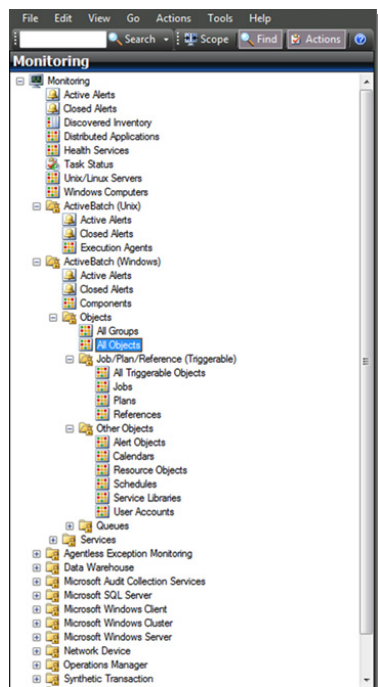
# Microsoft® System Center Operations Manager 2012

IT Automation Without Boundaries<sup>SM</sup>

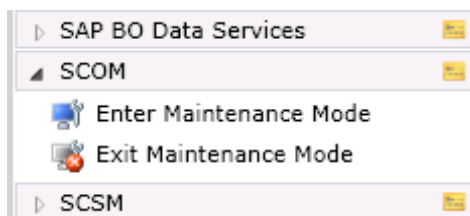


## Improve Service Levels by Identifying and Resolving IT Process and Workflow Issues in Near Real-Time with the ActiveBatch® Management Pack for SCOM

Monitor ActiveBatch objects, jobs, plans, machines and services through the SCOM interface



ActiveBatch® Integrated Jobs Library Job Steps for Microsoft System Center Operations Manager  
The [ActiveBatch Integrated Jobs Library](#) simplifies the development and implementation of single and/or compound business and IT processes into unified workflows using simple drag-and-drop templated Job Steps.



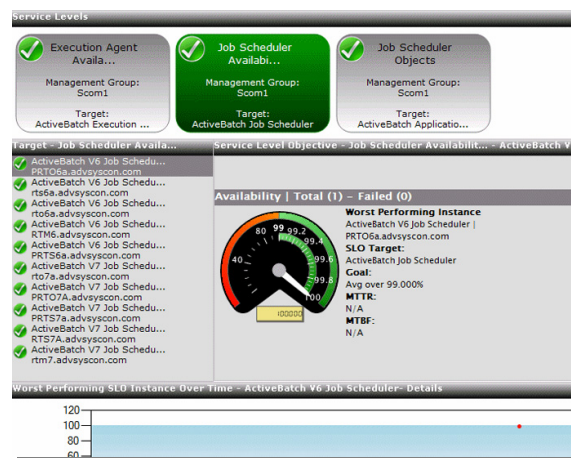
### >PROBLEM

IT Operational Groups require the ability to monitor the essential business processes and procedures that ensure that all components in the organization's environment are healthy. More and more, IT Operations Management are relying on Microsoft's Systems Center Operations Manager 2012 (SCOM) for improving service levels by being able to identify and resolve issues in near real-time that can affect the health of their systems and applications.

### >SOLUTION

The [ActiveBatch Management Pack for Systems Center Operations Manager 2012](#) allows IT Operations staff to centrally monitor the performance and health of the ActiveBatch Job Scheduler, Windows, UNIX and Linux Execution Agents and other ActiveBatch Objects such as Jobs, Plans and Queues with other important IT systems and components. When an alert is raised for an ActiveBatch Job Scheduler or Execution Agent service or from a "tagged" object, timely alerts are raised that direct IT Operations members to the SCOM console where detailed information is available for the rapid identification and resolution of issues that affect the health of your environment.

The ActiveBatch Management Pack for SCOM allows each of the ActiveBatch objects to be monitored within the SCOM Console by the Network Operations Center for improved efficiency and focus for identifying failures or interruptions faster through the SCOM Console to determine when:



- ActiveBatch services are impacted for fast resolution
- Targeted ActiveBatch Objects, such as Jobs, Plans, and Queues have failed
- ActiveBatch performance is being impacted for efficiency and reliability

Microsoft System Center Operations Manager 2012 (SCOM)  
ActiveBatch Version 7 and above



ActiveBatch® Management Pack for Microsoft System Center Operations Manager  
Scan this QR Code to learn more about ActiveBatch Enterprise Job Scheduling and Workload Automation Management Pack for Microsoft System Center Operations Manager 2012.

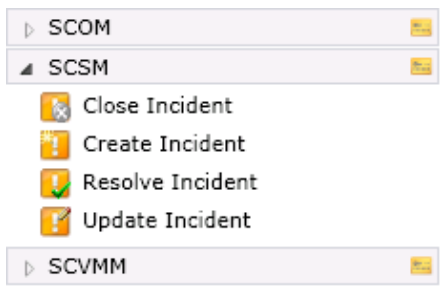


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## ActiveBatch® and Service Manager Provide Faster Time to Resolution and Improved Service Levels

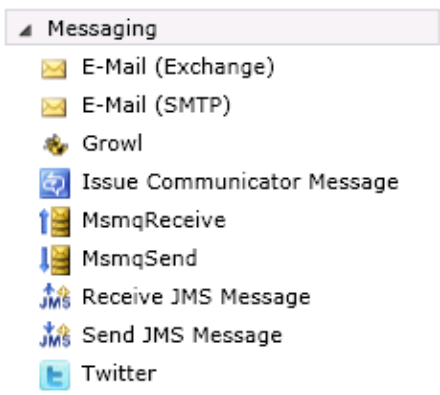
### ActiveBatch® Integrated Jobs Library Job Steps for Microsoft SCSM

The [ActiveBatch Integrated Jobs Library](#) simplifies the development and implementation of single and/or compound business and IT processes into unified workflows using simple drag-and-drop templated Job Steps.



### Incorporate ActiveBatch Alert Notifications

A key capability of the ActiveBatch-Service Manager interface is the ability to incorporate SCSM into the ActiveBatch [alert notification mechanism](#). Each ActiveBatch object has a series of alerts associated with it. Each alert, in turn, can have one or more delivery methods, such as an email or social media alert via Growl or Twitter.



### >PROBLEM

Time to resolution can have significant consequences on IT's ability to automate and run processes and workflows in real-time business. ActiveBatch's ability to immediately create Incident Requests within SCSM, without outside or manual intervention, when key workflows and processes fail can easily assist in improving time to action and ultimately resolution.

### >SOLUTION

ActiveBatch® offers a set of Job Steps, alert actions and event triggers in support of [System Center Service Manager 2012](#), that allow developers and workflow authors to create an incident request within Service Manager without having to write code or custom scripts when using ActiveBatch's templated and reusable Job Steps.

SCSM is an integrated platform for automating and adapting IT service management best practice by providing built-in processes for incident and problem resolution, change control and asset lifecycle management. With ActiveBatch, all IT workflow and process issues can be reported to SCSM and can take advantage of the "Incident Management" operations of SCSM. Incident Management is the "help desk" facility of SCSM and enables help desks to restore normal operation as quickly as possible, with the least impact on the organization.

ActiveBatch provides a series of Job Steps which facilitate the creation, maintenance and resolution of SCSM incidents. Through direct use of the Job Steps, ActiveBatch customers gain an easier entry to incident management by letting ActiveBatch do the "heavy lifting" of directly interfacing with the Service Manager APIs.

### >EXAMPLE

If a critical ActiveBatch job fails or the connection to an Execution Agent goes down during a peak processing period, an SCSM incident can be automatically generated and assigned, thus removing complexity and shortening the time to resolution to minimize the impact on the organization.

Microsoft System Center Service Manager 2012  
ActiveBatch Version 7 and above



ActiveBatch® Management Pack for Microsoft System Center Service Manager  
Scan this QR Code to learn more about ActiveBatch Enterprise Job Scheduling and Workload Automation Management Pack for Microsoft System Center Service Manager 2012.

# Microsoft® System Center Virtual Machine Manager 2012

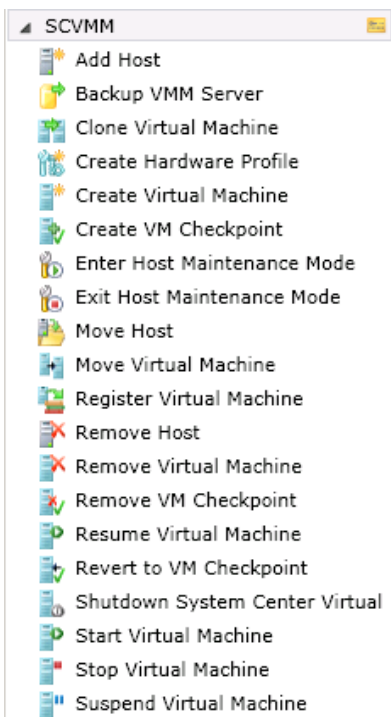


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## Reduce Costs, Maximize Resources and Improve Operational Flexibility and Efficiency with the ActiveBatch® Extension for SCVMM

ActiveBatch® Integrated Jobs Library Job Steps for Microsoft SCVMM  
The [ActiveBatch Integrated Jobs Library](#) simplifies the development and implementation of single and/or compound business and IT processes into unified workflows using simple drag-and-drop templated Job Steps.

Microsoft System Center  
Virtual Machine Manager 2012  
ActiveBatch Version 7 and above



### >PROBLEM

With new pressures on IT organizations for improved service delivery and resource utilization Data Centers are increasingly relying on virtual machines to reduce costs and improve resource utilization. To address these issues, IT managers are relying on Microsoft's Systems Center Virtual Machine Manager (SCVMM) for rapid provisioning of virtual machines by making it possible to quickly create and consolidate machines and servers within a virtual environment.

### >SOLUTION

The [ActiveBatch® Extension for Microsoft Systems Center Virtual Machine Manager 2012](#) allows IT Operations to create, provision, clone and distribute virtual machines across Hyper-V, VMware and other virtual systems using templated Job Steps from within the ActiveBatch Integrated Jobs Library. Within ActiveBatch a systems administrator can automate, by scheduling or using events, the provisioning and management of virtual systems, such as whether to add or delete a host or virtual machine, create snapshots and/or checkpoints, clone virtual machines and establish maintenance modes for specific machines.

ActiveBatch also provides "Intelligent Automation" to allow it to automate the provisioning of virtual machines without the need to manually insert SCVMM job steps within each workflow. Using Scheduling Analytics and the Smart Queue, new SCVMM instances can be provisioned to ensure the correct amount and combination of SCVMM machines are available before workflow execution or on-demand to meet an increase in workloads. These capabilities ensure SLAs are being met and deliver cost savings with "just in time" resource provisioning and optimization.

"Scheduling Analytics" to proactively provision virtual resources in advance of workflow execution by combining historical analysis and workload forecasting to ensure adequate resources are reserved for the successful execution of workflows whose completion is critical to addressing policy-based SLAs.

"Smart Queue" to automatically provision virtual resources "on the fly" in real-time to ensure that workflows that are currently executing have adequate resources to successfully complete.

The result: the ability to leverage ActiveBatch as a single interface to automate the provisioning and management of your virtual environment via SCVMM, thus allowing IT Operations to:

- Increase IT service levels through advanced automation capabilities
- Meet SLAs
- Improve resource allocation and utilization
- Lower Costs
- Improve ability to meet IT and business policy-based goals

ActiveBatch® Extension for Microsoft System Center Virtual Machine Manager  
Scan this QR Code to learn more about ActiveBatch Enterprise  
Job Scheduling and Workload Automation Extension for  
Microsoft System Center Virtual Machine Manager 2012.



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## **Amazon EC2**

Use ActiveBatch to automatically provision Amazon EC2 instances either predictively, before a workflow runs, or “on the fly” to guarantee adequate resources are assigned to ensure completion of workflows via the ActiveBatch Virtual Queue.

## **IBM Cognos BI**

Automate the generation and distribution of IBM Cognos BI reporting jobs and processes using business intelligence Job Steps designed for Cognos, including the creation and updating of IBM Cognos analytic cubes, the execution of reports and more.

## **IBM InfoSphere DataStage**

ActiveBatch automates critical processes performed by IBM DataStage while also allowing these processes to be integrated with non-DataStage processes. The ActiveBatch Extension for DataStage includes listing, running and stopping ETL jobs from within ActiveBatch’s centralized console.

## **Informatica PowerCenter**

Informatica PowerCenter business processes are augmented by advanced scheduling capabilities for improved control. Easily build and automate PowerCenter workflows as well as “compound” workflows by coupling them with other processes.

## **Microsoft SharePoint**

Add automation capabilities to schedule and run SharePoint backups, copy, creating, deleting or restoring SharePoint objects within ActiveBatch’s centralized console.

## **Microsoft System Center Operations Manager**

Monitor the health of the ActiveBatch system(s) and its objects, including Windows, UNIX and Linux Execution Agents and Objects such as Jobs, Job Plans and Queues. ActiveBatch Objects can be “tagged” to be monitored so timely alerts are raised in the SCOM console to alert IT Operations of an issue with your ActiveBatch environment

## **Microsoft System Center Service Manager**

Automatically create an Incident Report within Service Manager should a workflow fail for a faster resolution. A SCSM incident can be automatically generated and assigned based upon the failure of an ActiveBatch Object in order to shorten the time to resolution. ActiveBatch will also automatically update the incident within SCSM upon successful resolution of the problem.

## **Microsoft System Center Virtual Machine Manager**

The ActiveBatch Extension for SCVMM allows users to create, provision, clone and distribute virtual machines across Hyper-V, VMware and other virtual machine systems. Additionally, ActiveBatch supports the automatic provisioning of virtual and cloud-based resources “on the fly” in real time or via predictive scheduling to ensure workflows have adequate resources to complete.

## **Nagios**

Go beyond the monitoring of only ActiveBatch services by allowing your Nagios Server to inquire about the “health” of ActiveBatch Objects, such as mission critical workflows that include the “failures” of Jobs, Plans and Queues. Monitor important information regarding memory usage, CPU, threads, etc., of any of the ActiveBatch Execution Agents.

## **Netezza**

Automate Netezza processes including NzLoadData to load data, NZ-PLSQL Block to execute SQL queries in Netezza SQL language and NZBackup for database backups using ActiveBatch’s advanced scheduling capabilities.

## **Oracle PeopleSoft**

Automate processes with uploading and exporting of key data types into and out of PeopleSoft, such as supply chain management, accounting and invoicing data from other disparate systems, rather than relying on custom scripting or manual intervention to accomplish similar goals.

## **SAP NetWeaver BW & BusinessObjects Data Services**

Powered by SAP NetWeaver, this extension offers a cross platform framework that offers powerful new automation capabilities for SAP business processes while providing integration with other SAP and non-SAP processes into organized and unified workflows. The SAP Extension is certified by SAP for NetWeaver (XBP V2 & V3), BW Process Chains and BW Information Packages (BW-SCH).

## **Teradata**

Provides a full range of automation capabilities to manage and merge processes performed by Teradata, including database queries, starting and stopping PT jobs, ARC (Archive & Recovery) processes and loading data with other non-Teradata processes for improved performance.

## **VMware**

Data center users can more easily deploy and manage virtual systems. Workflow designers can include VMware actions within their business processes in support of applications, databases and platforms using the VMware infrastructure for improved resource utilization. ActiveBatch supports the complete set of VMware events using our Event Automation architecture.

## **Zenoss**

Your Zenoss Server can inquire about the “health” of ActiveBatch Objects. This includes mission critical workflows that include the failures of Jobs, Plans and Queues. In addition, important information regarding memory usage, CPU, number of open files and threads, etc., of any ActiveBatch Execution Agent is provided.

## ActiveBatch® Extensions

ActiveBatch Extensions offer incremental functionalities that integrate third-party applications and technologies with existing functions that are part of the Integrated Jobs Library and Service Library.

ActiveBatch Extensions Include:

- Amazon EC2
- IBM Cognos BI
- IBM InfoSphere DataStage
- Informatica PowerCenter
- Microsoft SharePoint
- Microsoft System Center 2012
  - o Operations Manager (SCOM)
  - o Service Manager (SCSM)
  - o Virtual Machine Manager (SCVMM)
- Netezza
- Oracle PeopleSoft
- Oracle Enterprise E-Business Suite
- SAP
  - o SAP NetWeaver
    - BW Process Chains
    - BW Information Packages
  - o SAP Business Objects Data Services
- Teradata
- VMware

## ActiveBatch® Add-Ins

Advanced Systems Concepts offers additional ActiveBatch capabilities that customize and enhance the use of the Enterprise Job Scheduling and Workload Automation system to meet specific requirements.

ActiveBatch Add-Ins Include:

- Host Based Execution Agent
  - Licensing for Virtual Machine Host
- Management Packs
  - o Microsoft System Center
    - Operations Manager (SCOM)
  - o Nagios
  - o Zenoss
- Mobile Interface
- Non-Cluster Failover Package
- Web Services Environment (ENV)
- Web Server Interface
- Web Server - Enterprise Edition

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## Contact Us

At [Advanced Systems Concepts, Inc.](#), we are committed to helping you make informed decisions about your job scheduling and workload automation solution.

## Visit Us

To access job scheduling and workload automation resources and to request personalized services, such as an ActiveBatch Product Demonstration, an ActiveBatch Proof of Concept or to speak to an ActiveBatch Professional, please visit us online at [www.ActiveBatch.com](http://www.ActiveBatch.com) or call +1 973-539-2660.

**Headquarters:**  
1180 Headquarters Plaza  
Morristown, NJ 07960  
United States

**Phone:** 1-973-539-2660  
**Web:** [www.ActiveBatch.com](http://www.ActiveBatch.com)  
**Email:** [info@advsyscon.com](mailto:info@advsyscon.com)



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[www.ActiveBatch.com](http://www.ActiveBatch.com)