IT organizations are managing an expanding array of applications, databases and technologies. Businesses are operating in a real-time world where IT demands are becoming increasingly complex. More advanced automation capabilities than Date/Time Scheduling are required. The result? A need to implement workflows that are increasingly dynamic and require an event automation architecture that not only shares data and manages dependencies between systems and technologies, but also “intelligently” automates the management of both resources, systems and monitoring across on premise and cloud-based technologies to ensure workflows are executed and completed successfully and on time. IT requires an automation solution without boundaries.

ActiveBatch is that single automation framework that brings all of your IT business process automation as well as IT operational requirements into a single and unified framework, including job scheduling, workload and runbook automation, self service automation and more. Give your IT organization the solution to develop, automate and manage the business and IT workflows that can automate and integrate the applications, databases, platforms, technologies and resources that comprise your IT environment.
Script-Free Automation

ActiveBatch® provides users with a "script-free" alternative to automating and constructing business processes and IT workflows that integrate various applications, databases and platforms. The Integrated Jobs Library provides users with more than one-hundred production-ready Job Steps which allow you to drag-and-drop specific templated Job Steps and functions into workflows that can easily integrate business and IT operational processes. The Integrated Jobs Library lets IT departments author workflows faster, easily pass data and intelligently manage each process without the need for developers to create custom scripts or programs.

Integrate with Third-Party Applications & Databases

Additionally, ActiveBatch Extensions make it easy to author and automate general requirements, as well as integrate third-party applications and databases with other systems using the Jobs Steps that are part of the Integrated Jobs Library. ActiveBatch Extensions are available for applications, databases and technologies.

The ActiveBatch Integrated Jobs Library: Extensions Job Steps

- Amazon EC2
- Cognos BI
- Create Cognos Cube
- Process Cognos Cube
- Publish Cognos Cube
- Run Cognos Report
- DataStage
- Informatica
- Netezza
- Oracle E-Business Suite
- PeopleSoft
- Get Process Output
- Get Process Request
- Login
- Schedule Process Request
- Synchronize Process
- Update Run Status
- SAP
- SAP BO Data Services
- SCON
- Enter Maintenance Mode
- Exit Maintenance Mode
- SCSN
- SC/VM
- SharePoint
- Team Foundation
- Teradata
- VMware

Technical and Business Benefits

Technical Benefits
- Scriptless Integration
- Reduce Slack Time
- Simplify Scheduling Across Complex Environments
- Improved Resource Management

Business Benefits
- Reduce Cost of IT Operations
- Improve Service Levels
- Align Business and IT Processes for Improved Flexibility
Applications

To automate enterprise-wide IT workflows and business processes, ActiveBatch provides integration for a broad range of applications, allowing IT to easily integrate Commercial Software systems as well as legacy applications and automate processes that span these systems via end-to-end workflows. While many applications have their own "bounded" scheduling capabilities, they are limited to executing jobs on their respective applications and the use of custom scripting to work around these limitations can be time consuming and prone to errors. With ActiveBatch you can construct workflows, automate processes, pass data and manage dependencies between various applications, such as SAP, Oracle, Informatica, Microsoft and others while managing these disparate systems all from within a single solution.

ActiveBatch Extensions are available for the following applications:

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.

Oracle Enterprise E-Business Suite
The Extension for Oracle E-Business Suite allows users to schedule and automate processes within Oracle E-Business Suite product line and integrate those processes with other business applications and systems, all via a single automation solution.

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 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).

Databases

ActiveBatch supports the scheduling of processes across a range of databases for the automated management of datacenters. ActiveBatch improves upon the limited scheduling capabilities found in today’s databases by providing a single point of control for scheduling runbook and infrastructure maintenance processes in addition to executing workflows that pass data and integrate databases with other applications, databases and platforms. For example, schedule processes, access stored procedures to build workflows for Oracle, SQL Server, Sybase or database appliances such as Teradata and Netezza and others.

ActiveBatch provides support for Oracle and SQL Server while ActiveBatch Extensions are available for the database appliances Netezza and Teradata:

Oracle
ActiveBatch Core Capability
Provides a full range of automation capabilities to execute Oracle processes and integrate them with other Job Steps from the Integrated Jobs Library, including Import/Export, Start Job, Get Job Status, Synchronize Job and PL-SQL Block.

SQL Server
ActiveBatch Core Capability
Construct end-to-end workflows that automate and integrate SQL Server functions as steps within workflows, including backups, DTS packages, SQL Server jobs, SQL Server reports, SSIS packages, T-SQL blocks and more.

Netezza
ActiveBatch Extension
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.

Teradata
ActiveBatch Extension
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.

www.ActiveBatch.com
Platforms

Today’s operating systems and computing platforms contain their own scheduling tools, such as Windows Task Scheduler or Cron for UNIX. These “closed” scheduling tools provide only limited scheduling capabilities for their respective platforms and do not provide cross-platform support for workflows that span various operating systems. ActiveBatch allows IT to overcome the limitations of these scheduling tools to provide a single point of control for scheduling jobs and processes across the heterogeneous collection of platforms that comprise today’s modern IT environment. In addition to supporting various operating systems such as Windows, Linux/UNIX, IBM z/OS, HP NSK, Mac OS, Xen, Microsoft Hyper-V, and others.

ActiveBatch provides an ActiveBatch Extension for Amazon EC2 and VMware:

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.

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.

Technologies

New technologies, programming languages and cloud/SOA-enabled applications and systems provide new boundaries to IT integration and automation. In today’s modern IT environment, business processes often span these various technologies and frameworks. That can make integrating and automating core business processes across the enterprise a challenge. To create true, end-to-end automation, the ability to use a single automation solution that supports technologies, languages and standards-based frameworks to integrate legacy systems with new applications and infrastructure is critical.

The ActiveBatch Services Library is a dynamic SOA and Web Services framework that eliminates the need for scripts to integrate enterprise applications and systems and supports the integration of internally and externally developed Web Services as part of workflows within ActiveBatch. The Services Library enables users to execute WSDLs (Web Services Description Language) and SOAP Web Services without the need for custom coding and turn them into reusable Job Steps within the ActiveBatch Integrated Jobs Library.

In addition to Web Services, the ActiveBatch Services Library also supports .NET Assemblies, Command-Line Interface (CLIs) and Stored Procedures to extend ActiveBatch’s ability to integrate with and execute jobs across third-party applications and systems that ActiveBatch does not already provide production-ready jobs steps for. As with Web Services, users can use ActiveBatch to call upon a .NET Assembly, CLI or Stored Procedures to retrieve methods and provide those methods as reusable, integrated Job Steps within the Services Library. Values that returned from these methods can then be passed to downstream workflows to be utilized as execution variables.

Finally, ActiveBatch, through its Integrated Jobs Library, provides access to key technologies through our template Job Steps which allows users to design and build workflows, using flow control, faster and more reliably. Technologies include Managed File Transfer (FTP, SFTP, FTPS), OpenPGP, Java, J2EE, Certificates, SSH, PowerShell and PowerShell Objects as well as other technologies.

The ActiveBatch Integrated Jobs Library Jobs Steps: Technology Examples

<table>
<thead>
<tr>
<th>Technology</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificates</td>
<td>Create Self-Signed Certificate, Load Certificate, Remove a Certificate</td>
</tr>
<tr>
<td>Java</td>
<td>Execute EJB Method, Execute Java Method, Execute JMX Method, Get JMX Attribute, Set JMX Attribute</td>
</tr>
<tr>
<td>Networking</td>
<td>FTP-SFTP-FTPS, Ping, Secure Shell - SSH</td>
</tr>
<tr>
<td>OpenPGP</td>
<td>Add User to OpenPGP Key, Create OpenPGP Keyring, Decrypt A File Using OpenPGP, Encrypt A File Using OpenPGP, Export OpenPGP Key, Generate OpenPGP Keys, Import OpenPGP Key, Remove OpenPGP Key, Remove User from OpenPGP Key</td>
</tr>
<tr>
<td>PowerShell</td>
<td>Execute PowerShell Script, Format PowerShell Objects</td>
</tr>
</tbody>
</table>
Management

As IT environments have become increasingly complex, IT workload and process automation has moved to the forefront to become a critical to more effectively integrate and manage IT environments and to ensure the demands of the business are being met. Accordingly, the ability to author, manage, alter and monitor these critical processes and workflows is important.

Event Automation Equals Real-Time Automation

ActiveBatch makes use of an event-driven architecture to address the dynamic requirements of initiating business and IT processes based on real-time requirements. Our event automation architecture supports the triggering of jobs and plans based upon a wide array of event types, as opposed to relying only on the more traditional date/time scheduling. As a result, workflows can go beyond “static” scheduling requirements to ensure that processes can initiated as specific business or IT events occur, saving time, improving service levels and reducing the cost of operations.

Auditing with Revision History

In today’s world of increasing internal and external regulation, the need for compliance, control and reporting within an organization’s IT environment is critical. ActiveBatch provides a complete Audit & Revision framework to provide ActiveBatch users with a comprehensive view of all actions and changes made to any object within the ActiveBatch environment.

Change Management System

ActiveBatch Change Management system, included with each ActiveBatch system, allows designers to compare, synchronize and manage ActiveBatch Objects across different environments, such as Development, QA/Test and Production. The Change Management system uses a graphical interface to allow designers to approve, accept or exclude changes as objects are promoted within environments. ActiveBatch provides the ability to schedule approved changes into any environment.

Additionally, being able to monitor these critical workflows for a failure and ensuring a fast time to resolution is becoming increasingly important. Network and IT Operations can oversee critical processes and workflows by allowing management and monitoring solutions to monitor the performance and health of ActiveBatch Jobs, Plans and Queues in addition to the ActiveBatch Job Scheduler and Execution Agents. Add-Ins are available for the following solutions:

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.

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.

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. See Resources Section Page 5

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.

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.

Other Monitoring Solutions

ActiveBatch supports a large number of third-party monitoring solutions using our Web Services interface. Ask for details.
ActiveBatch is an “Intelligent Automation” solution whose capabilities combine historical analysis and workload forecasting to ensure adequate reservation of resources for the successful completion of workflows which are important to addressing SLA’s. ActiveBatch includes resource management and event automation capabilities that leverages historical processing data from within the ActiveBatch database to allows users to proactively provision virtual and cloud-based environments by utilizing predictive and reactive forms of resource management, provisioning and scheduling based on “near real-time” requirements. ActiveBatch accounts for business resource requirements within their cloud and/or virtual environments to best achieve their business and IT goals.

Predictive Scheduling Analytics
Proactively provision resources in advance of workflow execution by combining historical analysis and workload forecasting to ensure reservation of resources for the successful execution of workflows whose completion is critical to addressing policy-based SLAs.

Automatic Server Provisioning
Automatically provision virtual and cloud-based resources “on the fly” in real-time to ensure that workflows that are currently executing have adequate resources to complete successfully.

Reporting and Dashboard Capabilities
Provides users with a series of out-of-the-box reports that graphically display key performance indicators on the execution and completion of ActiveBatch workflows. Users can also build their own custom reports and/or customize the dashboard layout to display the information most relevant to them.

Virtual Queue and Smart Queue

List of Reports
- AverageJobRunTime_byJobTag_Chart
- AverageJobRunTime_byMachine_Chart
- AverageJobWaitTime_byJobTag_Chart
- AverageJobWaitTime_byMachine_Chart
- CompletedJobBreakdown_byMachineStats
- CompletedJobBreakdown_byTagStats
- CompletedJobBreakdown_DateTime_Stats
- CompletedJobStatus_Chart
- EventBuilds_Changes_List
- EventBuilds_List
- EventBuildsType_byObject_Chart
- EventBuildsType_Chart
- JobCompletionStatus
- JobStatusDistribution
- Machines_List
- SubBuilds_List
- SQArunTime_Chart
- SQAWaitTime_Chart
- Top500Jobs_avg_RunTime_Chart
- Top500Jobs_RunTime_HILPRR
- Top500Jobs_RunTime_byMachine_Stats
- Top500Jobs_avg_Retry_RunTime_List
- Top500Jobs_avg_Retry_WaitTime_List
- Top500Jobs_rڬld3CPU_List
- Top500Jobs_rڬld3Memory_List
- Top500Jobs_rڬld3WaitTime_List
- Top500Jobs_r +#CompleteJob_Stats
- Top500Jobs_r +#CompleteJob_Stats
- Top500Machines_r +#CompleteJob_Stats
- Top500Machines_JobRunTime_HILPRR
- Top500Machines_JobWaitTime_Stats
- Top500Machines_JobRunTime_Stats
- Top500Machines_JobWaitTime_Stats
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 E-Business Suite
- Oracle PeopleSoft
- 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

About Advanced Systems Concepts, Inc.
Advanced Systems Concepts, Inc. offers many software products and options for users of Windows, UNIX, Linux, HP OpenVMS and NSK systems as well as IBM z/OS, AIX, i5OS and SCO UNIX. These products provide answers to software developers and system managers with improved system efficiency and utilization. Advanced Systems Concepts has a worldwide base of customers in over 42 countries around the world.

Advanced Systems Concepts is a Microsoft Silver Certified Partner, a member of the Microsoft System Center Alliance, an SAP Partner, an Informatica Partner, an IBM Netezza Technology Partner, a Teradata Select Partner, an Oracle Gold Partner, an HP AllianceONE Partner, an IBM Business Partner, a member of the VMware TAP Program, a certified Red Hat Ready Partner, and a Novell ISV Vendor.

Learn More About ActiveBatch
These are just some of the capabilities that ActiveBatch offers to provide you with an IT automation solution without boundaries. To learn more about ActiveBatch Workload Automation and how it can provide your IT organization with a single automation framework, contact us:

- Visit us on the web at www.ActiveBatch.com
- Email us at info@advsyscon.com
- Call us at +1 973-539-2660

ActiveBatch® Overview
Scan this QR Code to learn more about ActiveBatch Enterprise Job Scheduling and Workload Automation.
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 or call +1 973-539-2660.

Contact Us
At Advanced Systems Concepts, Inc. we are committed to helping you make informed decisions about your job scheduling and workload automation solution.

Headquarters:
Advanced Systems Concepts, Inc.
1180 Headquarters Plaza
Morristown, NJ 07960
United States

Phone: 1-973-539-2660
Web: www.ActiveBatch.com
Email: info@advsyscon.com