



IT Automation Product Comparison

Capabilities and Requirements Checklist

Powerful and Intelligent IT Automation Made Simple

Advanced Systems Concepts, Inc. (ASCI) is pleased to provide you with this **IT Automation Product Comparison Capabilities & Requirements Checklist** to assist you in identifying key criteria that address your requirements for IT Automation and Enterprise Job Scheduling. This checklist is one of several automation resources designed to help you while you work through the process of identifying and selecting product capabilities that address your specific IT and business requirements.

This checklist also provides you with the ability to directly compare ActiveBatch® with other vendor offerings so that you can make an informed decision.

ActiveBatch contains additional capabilities not listed in this checklist. Please let us know if you have a specific requirement or product question.

General/Cross-Platform	ActiveBatch	Other
Support for on-premise, public cloud, private cloud, and hybrid environments	✓	
Platforms supported include Microsoft Windows, Linux, IBM AIX, z/OS, iSeries, Sun Solaris, HP-UX, HP NSK, OpenVMS, Amazon EC2, MacOS, SCO UnixWare, and others	✓	
Support for native x64 and x86 Windows and non-Windows platforms	✓	
Backend database support for SQL Server 2017, 2016, and 2014, Microsoft Azure SQL, and Oracle 12c (R1 and R2) and 11g (R2)	✓	
Object-oriented, hierarchically organized system designed for ease of use	✓	

Date/Time Scheduling	ActiveBatch	Other
Ad-hoc scheduling (one-time or deferred)	✓	
Date/time scheduling (fiscal calendar-based)	✓	
Date/time scheduling (Gregorian calendar-based)	✓	
Multiple time zone support/support for daylight saving time	✓	
Support for local business day start time across time zones (for users employing Constraint-Based Scheduling)	✓	
Pattern-based date/time scheduling (e.g., daily, weekly, monthly, quarterly, yearly, specific times, time ranges, intervals, etc.)	✓	
Non-pattern-based date-time/scheduling	✓	
Custom calendars	✓	
Date Arithmetic syntax for custom date calculation (e.g., three days before the end of the quarter)	✓	
Option to associate the time(s) directly on a Job/Plan or to associate the time(s) with a reusable schedule	✓	
Ability to define the business day (start time for instantiating daily instances)	✓	
Multiple business calendars (non-workdays, holidays) associated to a single Job or Plan	✓	

Event-Driven Automation	ActiveBatch	Other
Trigger and/or Constraint-Based Scheduling options	✓	
Success, failure, abort, or conditional exit of a predecessor Job or Plan	✓	
Alert notifications as Job triggers	✓	
File trigger - creation, deletion, modification, or rename	✓	
FTP File Trigger	✓	
Email trigger - arrival from mailboxes including or excluding keywords, attachments (attachments can be saved for downstream operations)	✓	
Message Queue Inbound Message (JMS, MSMQ)	✓	
System startup trigger	✓	
Web Services triggers	✓	
WMI trigger	✓	
Twitter and Growl message triggers	✓	
SNMP trapping for communicating events	✓	
JMX event support	✓	
Apache Hadoop HDFS File Trigger	✓	
Oracle Database Event Trigger	✓	
SAP NetWeaver Event Trigger	✓	
ServiceNow Event Trigger	✓	
VMware Event Trigger	✓	
File constraints - presence, absence, size, exclusivity, date, wild cards	✓	
Job/Plan constraints	✓	
Variable constraints (including dynamic variables from data sources such as SQL or WMI [WQL])	✓	
Interactive constraints that pause workflows to request intervention and/or user input data	✓	

Workflow Development	ActiveBatch	Other
Integrated Jobs Library - Rich, out-of-the-box content library consisting of hundreds of automated integrations for commonly scripted actions (with built-in, pretested logic) in the areas of workload automation, IT process automation, big data automation, managed file transfer automation, and more	✓	
Windows and non-Windows support for content library integrations	✓	
Full API accessibility with support for REST, Web Services (WSDLs), Stored Procedures, .NET Assemblies, Command Lines, and more; ability to create reusable Job Steps from APIs without custom scripting	✓	
Available extensions for many common third-party applications and technologies	✓	
Ability to easily incorporate flow control into Jobs graphically, without the requirement for custom scripting	✓	
Embedded Script Job Steps supporting all scripting languages	✓	
Enhance existing scripts using the prebuilt actions and functions of the Integrated Jobs Library	✓	
PowerShell Job Steps supporting object passing and explicit and implicit remoting	✓	
Support for Process Jobs (script file or executable image) to be run on an execution machine	✓	
Support for built-in Script Jobs (no external script file needed)	✓	
Script language independence for use of any scripting language supported in the user's environment	✓	
Script Editor with built-in find-and-replace functionality	✓	

Content Library Integrations	ActiveBatch	Other
Active Directory Integration	✓	
Backups	✓	
Certificates	✓	
Database Operations (General, Oracle, SQL Server)	✓	
Embedded Scripts (script language-independent)	✓	
File System Operations (e.g., archive, copy, delete, move, etc.)	✓	
Flow Control/Conditional Logic (e.g., for each, if/else, try/catch, while, etc.)	✓	
Generic Installation and Deploy Actions (for Application Release Automation)	✓	
Java (e.g., execute EJB, Java, JMX Method; get/set JMX attribute)	✓	
Job Scheduler Actions	✓	
Logging	✓	
Mainframe Job Submission/Synchronization with z/OS	✓	
Managed File Transfer (MFT, FTP, SFTP, FTPS)	✓	
Messaging (e.g., email, Skype, JMS, Tweet, and more)	✓	
Microsoft Exchange Integration	✓	
Networking Actions	✓	
Open PGP	✓	
Power Management	✓	
PowerShell Integration	✓	
Reporting (e.g., Crystal Reports, SQL Server Reporting)	✓	
Shell Command Execution	✓	
System Administration	✓	
Task Scheduler Integration	✓	

Third-Party Extensions	ActiveBatch	Other
Amazon EC2 Extension	✓	
Hadoop Ecosystem Extension (HBase, HDFS, Hive, MapReduce, Oozie, Pig, Spark, Sqoop, and more)	✓	
IBM Cognos BI Extension	✓	
IBM InfoSphere DataStage Extension	✓	
IBM PureData (Netezza) Extension	✓	
Informatica PowerCenter and Informatica Cloud Extensions	✓	
Microsoft Azure Extension	✓	
Microsoft Dynamics AX Extension	✓	
Microsoft SharePoint Extension (including SharePoint online)	✓	
Microsoft System Center Suite Extensions (SCCM, SCOM, SCORCH, SCSM, SCVMM)	✓	
Microsoft Team Foundation Server (TFS) Extension	✓	
Oracle EBS Extension	✓	
Oracle PeopleSoft Extension	✓	
SAP NetWeaver Extension	✓	
SAP BusinessObjects Data Services Extension	✓	
ServiceNow Extension	✓	
Teradata Extension	✓	
VMware Extension	✓	
Virtually unlimited, scriptless integration through full API Accessibility (e.g., REST, SOAP, Stored Procedures, .NET Assemblies, etc.)	✓	

Workflow Management and Maintenance	ActiveBatch	Other
Intuitive, easy-to-use interface with a drag-and-drop workflow designer	✓	
Reference functionality to support reuse of template logic	✓	
Ability to template integrations or groups of integrations for reuse (per user or global)	✓	
Ability to copy and paste Job Steps (prebuilt integrations) between Jobs	✓	
Object Check Out/Check In functionality (including built-in conflict resolution)	✓	
Simulation Mode to accelerate workflow development and testing by simulating the execution of a workflow, without running the Job's payload	✓	
Formal parameters can be passed to a running Job	✓	
Jobs can pass data to downstream Plans and/or Jobs at execution time	✓	
Variable support to pass data between Plans/Jobs	✓	
Variables are hierarchical in scope (Plans, Jobs, users, and queues)	✓	
Variables can be constants or use various data sources (WMI, SQL query, etc.)	✓	
Variables can be exported to a running Job (i.e., environment variables)	✓	
Variables can be used to substitute a value for almost any string property within a Plan or Job	✓	
Variables can contain sensitive information that can be restricted based on security access	✓	
Variable Explorer for identifying variables within nested objects	✓	
Variables can be tied to a user account object	✓	
Variable search and replacement to find defined variables and/or reference and replace it	✓	
Variable auto completion while entering a variable name	✓	
Out-of-the-box Change Management system to compare, synchronize, and manage different Job Scheduler environments such as Test, QA, and Production.	✓	

Workflow Execution & Recovery	ActiveBatch	Other
Execution Queue for executing a Job on a specific machine	✓	
Generic Queue that employs scheduling algorithms for dynamic determination of a server to run a Job	✓	
Smart Queue for dynamic management of virtual/cloud resources according to demand and business rules set by the organization (i.e., provision and deprovision based on need)	✓	
Job/Queue prioritization	✓	
Automated system selection using various scheduling algorithms (workload balancing, round robin, sequential, etc.)	✓	
Plan/Job failure restart (failover or wait for machine), automated or manual	✓	
Machine failure restart (failover or wait for machine)	✓	
Restarts can be delayed and a maximum number imposed	✓	
Jobs not run due to a scheduler failure will be run on the scheduler's next availability	✓	
Monitoring of elapsed time (historical average or preset time) to proactively terminate an overrun Plan/Job or detect an underrun Plan/Job	✓	
Service Level Agreement (SLA) option with proactive policies for ensuring deadlines are met	✓	
Centralized logging, archiving, and log retention (user-determined period) across all platforms	✓	
Plans can contain all Objects including schedules, calendars, queues, users, and more, and can be scheduled/managed as Jobs (simplifies executing a related set of Jobs)	✓	
Recycle Bin for capturing and restoring deleted Objects	✓	
z/OS Mainframe Job submission	✓	
Heuristic Queue Allocation - power of Machine Learning built-in to improve allocation of workloads to queues, reducing elapsed time to completion by discerning execution patterns	✓	
Dynamic, User-Defined Queue Characteristics evaluate queue properties, submitting workflows to queues with the necessary capacity, resources, etc., increasing likelihood of on-time workload completion	✓	

Change Management	ActiveBatch	Other
Compare objects between different Job Scheduler environments	✓	
Synchronize objects between environments	✓	
Transform object characteristics based on different environments	✓	
Changeset auditing and rollback/restore options	✓	
Graphical interface for ease of use	✓	

Customizable Views, Insightful Analytics, and Reporting	ActiveBatch	Other
All-in-one, high-performance, customizable master console designed for ease of use (consistent with Web Console Interface)	✓	
Drag-and-drop graphical workflow assembler and development environment	✓	
Map View integrated development environment with hierarchical display provides a holistic view of all workflows and object relationships	✓	
Workflow Optimizer determines how workflow changes impact estimated runtime (with the option to commit or not commit any changes made), providing insight on where to reduce or eliminate slack time	✓	
Customizable Daily Activity View filterable by Job or Plan status	✓	
Runbook dynamic display of workload schedule with ability to break down time scale and work weeks	✓	
Alerts and Notifications Views	✓	
Machine Load View provides detailed insight on how systems and resources are being utilized	✓	
Customizable Dashboard containing operational and historical counters to provide dynamic visualizations of system performance	✓	
Gantt charting with forecasting capabilities provides insight for operations about how related batches affect a workflow	✓	
SLA Monitor provides real-time information regarding Jobs and Plans marked as SLA-sensitive	✓	
Tagging of Plans and Jobs	✓	
OLAP support for improved reporting, including dozens of built-in reports	✓	
SQL Server Reporting Services, Crystal Reports, and Oracle Reporting using Oracle BI Answers	✓	
Reporting templates for SQL Server and Crystal Report integrated and supported in Jobs Library	✓	
Template Object Reporting System for generation of insightful reports on any ActiveBatch Object and its relationships	✓	

Monitoring and Alerting	ActiveBatch	Other
Customizable alert notifications via email, JMS, Microsoft Message Queues, SMS text, Twitter, SNMP, Skype, and more	✓	
Alert notifications on pending Jobs, Plans, Queues, and other Objects, as well as the Job Scheduler, and more	✓	
Multiple alert conditions on any Job or Plan supported	✓	
Alert Objects, in addition to Alerts, support multiple alert conditions for easy reference and updating	✓	
Alert audits that allow operators to interact and respond to problems	✓	
Alerts when object definitions are updated	✓	
Alert notifications for SLA management	✓	
Built-in monitoring solutions and specialized views	✓	
Add-In monitoring solutions available including ActiveBatch Management Packs for System Center Operations Manager (SCOM), Nagios, and Zenoss	✓	
Available ServiceNow Extension that monitors & acts based on ServiceNow incident status	✓	

Auditing	ActiveBatch	Other
Objects are fully audited to comply with internal and external regulations	✓	
Audit policies configurable by authorized developer	✓	
Audit reporting on object definitions	✓	
Audits displayed by instance with the ability to drill down for audit details	✓	
Auditing by instance or Object definition (filterable and printable)	✓	
Fully searchable instance history with user-defined retention period	✓	
Object comparison showing changes between any two revision levels (Revision History)	✓	
Revision restore with full audit tracking helps ensure compliance with SOX, HIPAA, and other audit regulations	✓	
Version control and restore of scripts, providing complete script lifecycle management	✓	
Changeset auditing and rollback/restore options for objects and in Change Management	✓	
Self-documenting and user-documenting capabilities	✓	
XML log file option for easy-to-read format	✓	

Security	ActiveBatch	Other
Windows Security Model supported (including Kerberos and certificates)	✓	
Active Directory, ADAM, and LDAP support	✓	
All objects are fully securable (granular security) using Microsoft Security Model (with complete integration of Active Directory with no additional fees)	✓	
Kerberos logon avoids the need to store or otherwise maintain passwords	✓	
User security credentials may include SSL certificates	✓	
User security credentials may include SSH keytabs	✓	
Authenticated Hosted Exchange or SMTP email support	✓	
Policy management for setting defaults/audits	✓	
Published directory services for Plans and Folders	✓	
Virtual Root capability offers point connection and isolation from other Plans/folders	✓	
Ability to take ownership of securable objects	✓	
SSL and TLS secured connections between Job Scheduler and Execution Agents	✓	

Web Services	ActiveBatch	Other
ActiveBatch REST API can be used to retrieve information on ActiveBatch objects and instances and to perform ActiveBatch operations	✓	
REST and SOAP APIs	✓	
Cross-platform command-line client built on Java, utilizing Web Services to provide easy access to functionality without scripting	✓	
Web Services available as part of the core license	✓	

Licensing and Installation	ActiveBatch	Other
Consistent, affordable, and value-oriented licensing	✓	
Works in a dynamic environment (changing system types) without requiring additional license purchases	✓	
Master console allows connections to one or more schedulers simultaneously (isolated or consolidated)	✓	
Master console deployment on unlimited number of systems without pricing implications	✓	
Flexible licensing model by endpoint provides unlimited Job execution	✓	
Granular pricing model for small and large environments	✓	
Host-based licensing for virtual systems	✓	
Can be installed by customer (installs in minutes)	✓	
Connection Manager makes it easy to securely manage and save connections, including multiple connections to the same Job Scheduler with different credentials	✓	
Bring-your-own-license and OnDemand licensing options available on the Amazon Web Services (AWS) Marketplace	✓	

Available Add-Ins	ActiveBatch	Other
Web Console thin client, allowing users the ability to monitor and manage their automation environments from a browser	✓	
ActiveBatch Mobile Ops mobile application provides access and control, from anywhere, to securely manage and monitor key operational processes (available for iPhone and Android)	✓	
Self-Service Portal, provides business and help desk teams with real-time information while leaving IT in full control of Jobs, privileges, and security	✓	
Non-Cluster Failover for transparent failover to passive schedulers	✓	

Technical Support, Services, and Training	ActiveBatch	Other
Comprehensive documentation featuring use cases and best practices	✓	
Continuously updated Support Portal for problem identification and online Knowledgebase access	✓	
ActiveBatch Forum – user community	✓	
Industry-leading support with over 98% customer satisfaction rating	✓	
Support Plan options available including 24x7 production outage support option	✓	
Version upgrade subscriptions	✓	
Automated migrations available for systems such as BMC Control-M, CA Autosys, CA Workload Manager, Tidal Workload Automation (formerly Cisco Tidal), and IBM Tivoli	✓	
Migration tools available for platform-specific scheduling tools including Windows Task Scheduler, SQL Server Agent, and Unix Cron	✓	
Professional services (including migration services, consulting, and private training options)	✓	
ActiveBatch Academy with role-based learning paths (courses for developers, operators, and administrators), Deep Dive Courses, all-access OnDemand Training subscriptions, and more	✓	
Role-based User Certification Program	✓	



At Advanced Systems Concepts, we are committed to helping you make informed decisions about your IT Automation needs. Please let us know if you need clarification on any item contained in this checklist.

For more information or to speak with one of our consultants about your IT Automation needs, please visit us at ActiveBatch.com.

About Advanced Systems Concepts, Inc.

Founded in 1981, Advanced Systems Concepts, Inc. (ASCI) develops cutting-edge products across the breadth of customer markets. Advanced Systems Concepts 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. With a worldwide base of customers in more than 50 countries, Advanced Systems Concepts helps companies respond to increasingly complex business needs with a leading-edge IT Automation solution that improves business performance and IT operations.

Advanced Systems Concepts, Inc. is proud to partner with many industry-leading solution providers, including:

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