Overcoming Complexity: An Overview

Constantly evolving business requirements coupled with changes in computing economics have resulted in rapid growth in computing resources. To remain competitive, business is pushing for new, more reliable, and more scalable applications and technologies. Simultaneously, IT is also facing a growing skills gap pushed in part by low unemployment, straining teams in need of skilled, experienced staff who can navigate the changes.

Driven by these marketplace demands, IT organizations need to automate increasingly complex processes. But traditional forms of automation involving custom scripting and application-specific scheduling tools just add to the complexity. According to Gartner research, most organizations have 3 to 8 different scheduling and automation tools in place. This further dilutes resources and causes the operational confusion that comes with managing multiple automation silos.

Advanced Systems Concepts is Redefining IT Automation with its industry leading cross-platform, Enterprise IT Automation and Job Scheduling solution, ActiveBatch. ActiveBatch coordinates and consolidates silos of automation across applications, platforms, databases, and technologies within a single framework. ActiveBatch’s unique capabilities — its scalable, powerful automation engine, content integration library, and intuitive workflow design and assembly — are designed to accommodate changing business and IT requirements in a variety of infrastructure environments. As a result, organizations are improving IT agility and reducing the cost of change by taking an Architectural, Layered Approach to Enterprise IT Automation.
ActiveBatch helps IT organizations reduce their dependency on custom scripting with its innovative Integrated Jobs Library. The Integrated Jobs Library features a graphical, drag-and-drop workflow designer with hundreds of prebuilt, pretested integrations for commonly scripted actions and functions in a multitude of different automation areas including Workload Automation, Business Process Automation, IT Process Automation, Managed File Transfer Automation, Big Data Automation, Infrastructure Automation, Onboarding Automation, and much more. The built-in, reliable logic of these functions allows for faster workflow creation by reducing the amount of time and effort developers would otherwise spend on research, designing, coding, and testing custom scripts, enabling a shift in focus to function, rather than coding.

The Integrated Jobs Library contains integrations for a wide-range of third-party applications, databases, and computing platforms. The ActiveBatch Service Library extends the power of the Integrated Jobs Library with full API accessibility that allows users to create reusable Job Steps from WSDLs, REST services, and more.

ActiveBatch provides a flexible, real-time graphical display and dynamic development environment with Map View. Map View is a centralized, 360-degree interface that allows users to build, design, modify, schedule, and trigger workflows all from a single pane for improved workflow management. Map View contains a built-in Workflow Optimizer that delivers insights about what causes workflow delays. Users can explore and simulate changes in workflow design with graphical representations of individual workflows to understand how to improve performance and reduce bottlenecks and slack time.
PROTECT YOUR EXISTING SCRIPT INVESTMENT

The function of an IT Automation solution is to reduce, simplify, and enhance coding, not replace it. Most organizations have a significant investment in scripts that were written for specific products, applications, or services. ActiveBatch helps organizations protect their existing scripts with script vaulting and lifecycle management capabilities. ActiveBatch serves as a central library for all scripts and provides an audit trail of all revisions made to scripts (with revision rollback options) so that users can easily track changes and restore to previous versions. ActiveBatch is a script-language independent solution with support for all scripting languages.

CREATE AND MAINTAIN WORKFLOWS FASTER & MORE RELIABLY.

ActiveBatch’s Reference Objects allow unlimited Reference Jobs to mimic the same logic of an original Template Job. This means that a single change to a Template Object will automatically be passed down to each Reference. As a result, References provide for simplified maintenance going forward rather than using copy-and-paste. Additionally, ActiveBatch supports the use of Variables within Jobs. Variables are used to represent data and can be used within different Jobs to carry that data over to different places. A single change to a Variable’s value will update the value in each object in which it is used. Variables are supported in a hierarchical fashion, and the information in a Variable is securable.

ActiveBatch makes use of an event-driven architecture to effectively manage business and IT processes based on near real-time requirements. ActiveBatch’s event automation supports a series of actions to be taken on a wide array of occurrences including email, file events, FTP server events, message queues, Web Services, SAP, ServiceNow, and more.

EVENT AUTOMATION EQUALS REAL-TIME AUTOMATION
INTELLIGENT WORKLOAD ALLOCATION AND RESOURCE PROVISIONING
DELIVER SCALABILITY AND FLEXIBILITY TO HYBRID IT ENVIRONMENTS

ActiveBatch Heuristic Queue Allocation (HQA) allows for seamless scalability by bringing the power of Machine Learning to IT Automation. HQA analyzes historical instance data and predicts the optimal allocation of future Execution Queues (machine paths), intelligently distributing Job load across all available and acceptable Execution Agents, sharply reducing slack time and idle machine resources.

Users can assign custom dynamic characteristics to queues, instructing ActiveBatch to evaluate multiple servers before submitting Jobs to the servers on which they are going to run. For example, developers can configure workflows to monitor available disk space and registry values, using these dynamic characteristics to make sure Jobs are paired with machines capable of completing the tasks at runtime, which in turn helps ensure successful and timely Job completion.

With ActiveBatch Managed/Smart Queue facilities, users can create new computing resources and associate them with ActiveBatch processes; additionally, users can automate the provisioning of resources across virtual and cloud systems, dynamically scaling up or down resources based on real-time demand and historical analysis of past scheduling periods. Because of these capabilities, organizations can optimize their virtual/cloud computing environments and minimize wasteful spending, while IT operations can more easily meet SLAs and other business deadlines by increasing the likelihood of successful, on-time job completion.

MACHINE LOAD VIEW ALLOWS USERS TO DETERMINE HOW EXECUTION MACHINES ARE PERFORMING.
ActiveBatch promotes policy-driven governance through the organization with a comprehensive automation framework that supports auditing, revision history, changesets, policy authorizations, advanced SLA management, and more. In combination, these features provide an authoritative source letting users understand exactly what is running and when, with the ability to easily control and monitor the status and security of workflows, within a single pane.

ActiveBatch provides a variety of measures to keep data safe and encrypted. ActiveBatch's security-driven automation model leads the market in delivering secure, enterprise-wide automation by preventing unauthorized access to systems and data. ActiveBatch fully supports the Windows security model, including Kerberos and Active Directory, allowing organizations to apply their existing accounts and groups for simpler management and security of users and groups.

**ACTIONABLE TEMPLATE REPORTING, ANALYTICS, & BUSINESS INTELLIGENCE**

ActiveBatch supports a variety of built-in and custom reporting tools which enable organizations to deliver information to end-users quickly and in multiple formats for improved decision making. ActiveBatch supports both Template as well as Instance Reporting, which, together, provide a comprehensive look into the automation environment and operations.

**ACCESS ACTIVEBATCH FROM ANY COMPUTER OR MOBILE DEVICE**

In addition to its high-performing thick client, ActiveBatch offers ActiveBatch Web Console which allows users to monitor and manage their automation environments from browsers anywhere in the world.

The ActiveBatch Mobile Ops app, available for both iOS and Android, allows users to monitor critical workloads and respond to issues while on-the-go. Mobile Ops provides secure access to a robust Instances View, search-and-filter options, content-aware alerting with push notifications, and more.

ActiveBatch Self-Service Portal provides end-users – including business users, help desk teams, etc. – the ability to run and monitor assigned workflows without depending on the day-to-day involvement of IT, while still preserving IT's full control of jobs, privileges, and security.
ActiveBatch Extensions offer enhanced functionalities that integrate third-party applications and technologies with existing functions in the Integrated Jobs Library as well as our Service Library.

Amazon EC2
Hadoop Ecosystem
IBM Cognos BI
IBM InfoSphere DataStage
IBM PureData System (Netezza)
Informatica Cloud
Informatica PowerCenter
Microsoft Azure
Microsoft Dynamics AX
Microsoft SharePoint
Microsoft System Center Suite
Microsoft Team Foundation Server
Oracle E-Business Suite
Oracle PeopleSoft
SAP NetWeaver BW
SAP BusinessObjects Data Services
ServiceNow
Teradata
VMware

ActiveBatch® Extensions

ActiveBatch Extensions provide an extensive set of features including:

- RESTful Services
- Web Services
- .Net Assemblies
- Stored Procedures
- Command Line Interface

The ActiveBatch Service Library enables users to consume REST services, WSDLs, and more, turning them into reusable Job Steps within ActiveBatch and allowing users to create workflows faster without the need for custom coding. Included are:

- RESTful Services
- Web Services
- .Net Assemblies
- Stored Procedures
- Command Line Interface
Advanced Systems Concepts is a recognized leader in the IT Automation industry by analysts including Gartner, Forrester, and EMA. Trusted by over 2000 customers in 52 countries worldwide, Advanced Systems Concepts has been developing cutting-edge products across the breadth of customer markets for more than 37 years.

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