flux
Workload Automation

Overview

As a proven leader in sophisticated job scheduling, managed file transfer, automated dataflows, and automation of ETL and other business processes, Flux brings it all together to easily manage the on-demand IT processing requirements of workload automation.

Always integration-friendly with web services through a service-oriented architecture (SOA), Flux is powerful, flexible, and one of the simplest solutions available today. Schedule and automate various applications, databases, and technologies, including virtual machines and services in the cloud in real-time.

Flux can be deployed as a stand-alone solution or embedded in your application. Seamless integration reduces complexity, minimizes errors, and improves your ability to access comprehensive visualizations of your data and workflows. Consultation and training is available on-site and online.

Job scheduling, managed file transfer, automated workflow, ETL automation

Why Flux?

Overall Ease of Use
Design, deploy, and track your jobs and workflows using a drag-and-drop visual interface, right in your web browser. There are no cryptic or complicated command lines to learn or cumbersome desktop installations to maintain.

Single Point of Control
The Flux Operations Console can monitor 500 000+ jobs, workflows, and file transfers, all at the same time. Using Flux's web-based Operations Console (dashboard), watch over and monitor all your jobs, workflows, and file transfers.

Cloud Friendly
From a single point of control, Flux provides visibility and control over workloads and processes across the enterprise — whether in physical data centers, virtual environments, the cloud, or a hybrid of all three.

Cross Platform
When you are running in a heterogeneous environment and using hardware, databases, and system software from different vendors, Flux keeps it simple with Java using a single code base...allowing it to be friendly in any environment.

Lightweight
Flux does not consume much processor, memory, or hard drive space and runs equally well on laptops, workstations, enterprise-class servers, and mainframes.

Hands-on Support
Your satisfaction is our top priority, and we'll work to resolve your issues as soon as possible. As a Flux customer, you can use the Flux Portal to find everything you need to make sure you're using our solutions to their fullest potential.

Capabilities

Drag and Drop Visual Workflow Design
Reduce errors and increase efficiency with the Flux Operations Console. No programming required. Design multi-step jobs and workflows, complete with dependencies, conditional branching, and looping. Look at your job dependencies and workflow dependencies, all within the browser.

Sophisticated Job Scheduling
Simplify and reduce your staff's duties. Flux allocates resources on demand, and makes real-time decisions on job routing.

- **Event-driven:** *Trigger a wide range of automated responses based on the occurrence of any event, such as the arrival of a file, a database event, or when the system workload reaches a preset threshold.*
- **Batch:** *Date and time based executions are a breeze with Flux. Schedule batch jobs across all your computing environments.*

Managed File Transfer
With extensive FTP, SFTP, FTPS, and secure FTP support, Flux managed file transfer reduces errors and improves timeliness over manual methods.
- *Watch for inbound files on remote FTP servers*
- *Streaming server-to-server file copies*
- *Issue FTP commands directly to server*
- *Change file permissions*

ETL Tool Automation
By integrating ETL (extract, transform, load) tools into your business processes, your data arrives in the right place in the right format for your business processes. Flux can orchestrate and manage these processes, providing your staff with increased reliability and a simpler IT infrastructure.

Capabilities (continued)

Automation of Unique Resources on Your Network
Take advantage of resources spread out across your network and run processes on a specific computer that contains unique resources. Using a Flux Agent, run a process on a remote computer or run agentless scheduling using SSH.

Flexible and Simple Web Services (SOA) Integration
RESTful Web Services API adds flexibility to the Flux API and simplifies integration in an SOA environment. With web services via SOA, your business processes can communicate using a variety of networked and online services by exposing workloads as a service. You can connect to and control Flux remotely using any programming language that supports RESTful web services.

- *Trigger, initiate, and schedule workflows in Flux from other SOA services in the cloud.*
- *Invoke web services using SOAP or REST.*
- *Supports WS-Security basic authentication.*

Automated Workflows
Define simple or intricate automated workflows using a powerful state machine model. Perform tasks and wait for events to occur within your workflow. Scale individual workflows to 500 steps. Run thousands of workflows across a cluster of Flux workflow engines.

Clustering and Failover
Your organization demands that users experience a minimum of disruptions in service. Flux can be clustered on 2 to 30 servers. There is no single point of failure in the cluster. If one server goes down, that server's duties are automatically and seamlessly moved to the other servers in the cluster.

Scaling
Scale to 500,000+ jobs and workflows.

Load Balancing
Flux automatically spreads the task load out across all the servers in the cluster.

- *Less busy servers receive new work before busier servers.*
- *In jobs and workflows that contain parallelism, different parts of the same workflow can run simultaneously on different servers in the cluster.*

High Availability
All servers in the cluster cooperate equally to increase the system's overall throughput even in the event of server failure. There is no single point of failure.
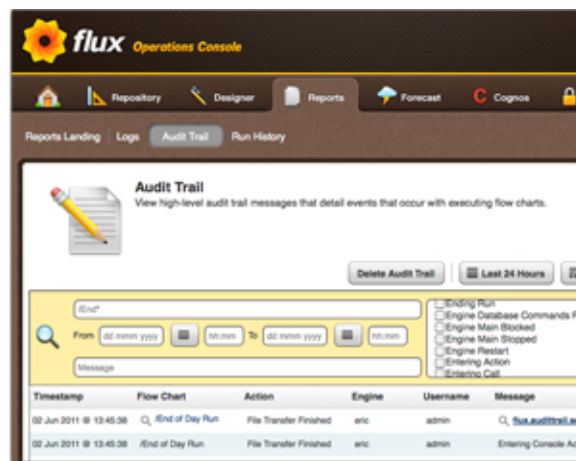
Security and Control
Ensure security and auditing compliance with extensive built-in security and auditing capabilities.

- *Granular user access controls to govern assigned tasks for staff. Set privileges and customize tabs to increase security and efficiency.*
- *Tap into your organization's LDAP and Active Directories for single sign-on purposes.*
- *Access security mechanisms in the Operations Console, the Java and REST APIs, and the command line interface.*

Audit Trail
With the Audit Trail, you can run reports to determine what tasks, steps, actions, jobs, and workflows executed within a specified time frame. With the Audit Trail History feature, operators can track and time workflows to quickly identify bottlenecks, security issues, and poor resource utilization.

Error Recovery & Notification
Minimize downtime and take steps when a process errors out or a file transfer fails. Configure automated responses to errors or create appropriate notifications. With Flux, you can utilize automatic email and SMS notifications. Flux also enables you to define SLA's and notifications for the various parts of an automated data warehouse. With increased communication to IT staff, action can be taken immediately.

- *At any point in a job, define automated or manual error handlers to resolve, retry, or report the situation.*
- *Flux's error handlers can be defined in terms of a workflow, allowing you to create sophisticated error recovery mechanisms.*

Capabilities *(continued)*

Automated Java tasks for added capabilities
Simplify your Java automation infrastructure to increase the reliability and visibility of your Java processes. Flux has a deep Java API for use in Java EE (J2EE) and Java SE (J2SE) applications. All of Flux's functionality is available via its Java APIs so you can add job scheduling, workflow, and managed file transfer capabilities to your application.

- **Application Server Support:** *Flux supports popular application servers like WebLogic, WebSphere, JBoss, Tomcat, and Jetty. Embed Flux and your application within these application servers.*
- **Server technologies supported:** *using data sources, publishing and receiving JMS messages, creating EJBs, and calling EJBs.*
- *Java SE applications supported.*

Database Integration
When your business processes need to interact with your databases (using stored procedures and SQL scripts), Flux can orchestrate and oversee the integration.

- *Call stored procedures defined in local or remote databases and pass data into your stored procedures, from there...pass the results through to the next step in your workflow.*
- *Issue database queries against local or remote databases and process the results within your workflow.*
- *Update existing data or add new rows to your tables in your local and remote databases.*
- *Query your databases and pass the data through to your jobs for processing.*

Learn More

Download or Demo
Hassle-Free Downloads. Get-to-the point Demos.

Flux software downloads are free...and hassle-free. Download a fully functional 30 day evaluation version of the software. During your evaluation, you have complete access to our support and engineering teams to work out examples or ask in-depth questions about architecture, environments, or Flux capabilities.

Schedule a Personalized Demo. Demos are provided by our Flux engineers. They are succinct and customized based on your requirements. These 45-60 minute conversations use online conferencing to allow you to see all of the benefits and functionality that Flux has to offer — all from the convenience of your office.

- *Invite as many of your colleagues to participate as you like.*
- *Ask all the questions you want.*
- *Run through your company's workflow and every day requirements.*
- *Focus on the features of particular interest to you and your company.*

About Flux

Flux has grown into a vital part of IT operations around the world with hundreds of customers in 35 countries. For over a decade, Flux has enhanced the feature set well beyond job scheduling. Since our first release in 2000, we have added significant new features while maintaining compatibility with older releases, making upgrades as painless as possible. We share our roadmap, listen, and prioritize valuable input for upcoming releases.

Across platforms and many industry sectors, Flux has simplified tasks surrounding workload scheduling, ensuring that critical transactions are processed on time. Whether Flux is used as a powerful stand-alone workload automation solution or embedded into a larger application pushing tens of thousands of jobs, Flux solutions bring solid business value with efficiencies, precise control, and affordability.

Privately held, offices are located in Las Vegas, Buenos Aires, and Montana, all of which provide effective technical support and sales services to Flux's global customer base.

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