

# Automation, Optimization and Modernization of Batch System Management

Batch processing accounts for most peak mainframe workloads at large enterprises, providing essential back-end digital capabilities for mobile, cloud and web applications. As demands on these back-end mainframe batch processes intensify in terms of scale and performance, the pressure to ensure compliance with SLAs and control costs increases. Further, the responsibility for batch management is rapidly shifting from platform veterans to Millennials with less experience, putting enterprises at risk of critical operations failing, being delayed or generating excessive costs.

Compuware ThruPut Manager automatically and intelligently optimizes the processing of batch jobs. By balancing workload and improving batch throughput, ThruPut Manager delivers significant savings, including software license fees. Key benefits include:

- Immediate, intuitive insight into batch processing that even inexperienced operators can readily understand
- Better prioritization of batch processing based on business policies and goals, automatically selecting the most urgent jobs first without system overload
- Increased data center control and proper batch execution by verifying that jobs have all the resources they need and proactively managing resource contention between jobs
- Dramatically reduced IBM Monthly Licensing Charge (MLC) costs by minimizing rolling four hour average (R4HA) processing peaks without counterproductive “soft capping”
- More mainframe resources available for mobile, web and cloud applications since better-managed batch workloads reduce overall demand

## KEY THRUPUT MANAGER CAPABILITIES

### Automated Service-level Management

Provides an automation framework for batch SLA management, including service goals, reporting and automated actions to ensure SLAs are met. Real-time information is supplied on current service levels and trends.

### Workload Balancing and Throughput

Dynamic initiators automatically control batch load and distribution to prevent over-initiation and improve batch throughput. Operations are more controlled and efficient. System performance evaluations are taken every 10 seconds, enabling precise decision making amidst changing business demands.

### Workload Prioritization and Escalation

Automatically re-orders the batch queue, ensuring that the most important workload gets done first and is progressively escalated as SLAs become more critical.

### Automatic Rule Retention

Automatically retains, once set up, the business rules for batch workload for the installation. Rules are then applied consistently and repeatedly to system performance, improving batch throughput and maximizing savings. Rather than making decisions under pressure, ops teams instead make thoughtful choices ahead of time.

### Automated MSU Reductions and MLC Savings

Automatically monitors R4HA usage and reduces MSU consumption to lower MLC when sub-capacity pricing is used. Reduced MSU consumption with ThruPut Manager is achieved through constraining and deferring workload, rather than manipulating cap levels.

### Workload Demand Constraint

Automatically constrains batch demand as peaks in the R4HA approach the cap to lower MSU consumption across LPAR groups by an average of 10%.



### “Safe Capping/Soft Hammer” Approach

Enables data centers to avoid the negative effects of “hitting the ceiling” when R4HA caps are in place. Automatically reduces demand in advance of the cap, constrains demand during the capping period(s) and automatically restores workload to normal operations once the cap has passed.

### Data Center Standards Management

Automatically assigns job parameters to conform to data center standards, including job class, priority, job name, account, SYSOUT parameters, WLM service class and the scheduling environment. Replaces Mellon Mods and many in-house JES2 user mods and exits.

### Job Resource Analysis

All jobs are analyzed at submission to determine their resource requirements (up to 250 unique identifiers) to facilitate automated batch management and workload control.

### Job Routing Management

Automatically determines resource dependencies (e.g., licensed software, etc.), ensuring that jobs run only where and when the specific resources are available. No user JCL changes are required.

### Dataset Contention Management

Eliminates dataset conflicts and ensures higher priority workloads get first access by detecting and resolving dataset contention.

### Virtual Volume Staging and HSM Recall

Performs essential setup requirements while jobs are waiting in the queue.

### Enhanced User Controls

Dependent job control, date/time-based job selection and enhanced SDSF displays provide users with additional job control and status info.

Learn more at [compuware.com/thruputmanager](http://compuware.com/thruputmanager).

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