

Trading platforms

Batch Analytics

Exploding data volumes and tight processing times have made end of day and overnight batch runs vital functions to actively optimise. Sumerian's Batch Analytics delivers quantified insight to help teams cut through the complexity and gain deep understanding into their batch processing function and its interdependencies – reducing risk to the business, improving processing timeframes and strengthening compliance controls.

The challenge

Optimised batch processing is critical to today's trading strategies - ensuring downstream systems are updated with client margins and positions for the next day's business, that commissions and fees are duly calculated, and that all required reporting is completed on schedule. However, the complex nature of batch processing can make proactive optimisation difficult to realise, fundamentally arising from a lack of visibility into:

- The trade volumes being processed day to day
- How variances in these trade volumes influence batch duration times
- The utilisation of the underlying estate, processing power (CPU and memory) and capacity, and how this is changing over time

How our service works

Sumerian takes a unique approach to batch processing and its ongoing optimisation. Using our highly powerful analytics platform, we capture, model and analyse data generated by your batch function, identifying jobs with the longest durations and most variance - and then within these jobs, pinpointing specific tasks with the highest contribution to this duration.

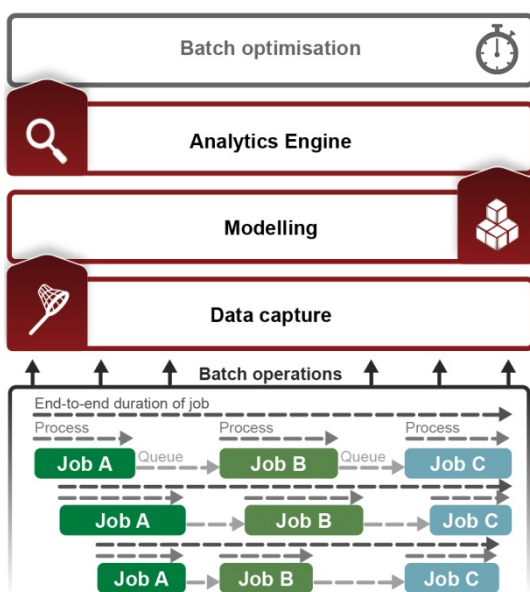


Fig.1 – Sumerian Batch Analytics methodology

- **Holistic visibility into your batch function** - supplies you with insight to understand the composition of your batch function and how this impacts performance and duration
- **Quantified recommendations to proactively optimise** – pinpoints areas for improvement, parallelisation and/or consolidation, to achieve ongoing efficiencies
- **Reduces risk and improves IT-business alignment** – by establishing a planning horizon in which to provision batch resources adequately and proving sound processes for compliance needs

The resulting insight and Sumerian's recommendations are then applied to help identify and target strategies for optimisation, determining the critical path of job dependencies and identifying areas for improvement, parallelisation and/or consolidation.

What you get

We deliver a hosted subscription-based analytics service, requiring minimal time from you and your team to get underway – delivering our analytics in as little as 6 weeks.

Fast, secure data cleansing and integration

Using our pragmatic data collection techniques, we capture granular data in its raw form from your environment - verifying, cleansing and storing it securely in our world class data warehouse facilities. Our service can take any data, but typical data sources for batch analytics typically include:

- **Infrastructure utilisation metrics** – iSeries, BMC Patrol, CA Wiley, Teamquest, Unix monitoring tools such as SAR, PerfMon
- **Start and end batch times** – Autosys, Control-M, proprietary logs
- **Volumes of incoming transactions** – from log files, or extracted from database tables

Baselines batch processing vs. business demand

Using our analytics platform, we build a baseline model of how batch jobs are being processed on a daily basis by calculating:

- the volumes and composition (trade mix) of transactions, reruns and positions executed within each batch
- the distribution of batch, job and task durations, which jobs and tasks exhibit the highest degree of variability in duration and the underlying causes of this variability
- the inherent relationships between trade mix, volume, resource consumption and batch duration
- the processing resources required to handle typical and peak throughput profiles

This provides a detailed model with which to accurately quantify the current effectiveness of the batch function against key business criteria – enabling us to provide clear indications on where your team should focus development and maintenance for performance improvements and capacity gains.



Scenario model changes to the batch

The baseline model of your batch processing function offers a powerful platform for you to leverage and further capitalise on. Using sophisticated “what if?” scenario modelling, we can answer any number of questions around your batch jobs/tasks and objectives. For example, we can assess the risk, impact and cost of any architectural upgrades, business volume growth, changes to job sequence and forecast the impact on your estate. The advantage of our scenario modelling is that it can rapidly answer any number of “what if?” questions – essentially providing a “pre-sandbox” environment in which to test out ideas before they’re given the green light, such as:

- *What will be the impact on the batch processing duration if we increase trading volumes by 25%?*
- *How can we reduce our batch run times in order to meet our growing trading volumes?*
- *Will our trading be affected by latency issues if we migrate our batch processing to a new datacentre?*

Expert reporting – on demand, repeatable

Our analytics are presented to you using a variety of methods depending on your requirements, from a tailored, secure Web portal to regular reporting from our data scientists. Key to our reporting is clarity, ease of use and precision - so you can make fast decisions and drive proactive, positive improvements to your IT. Our service is very flexible and easy to re-align, we keep pace with your changing environment, adapting our analytics to meet your changing priorities.

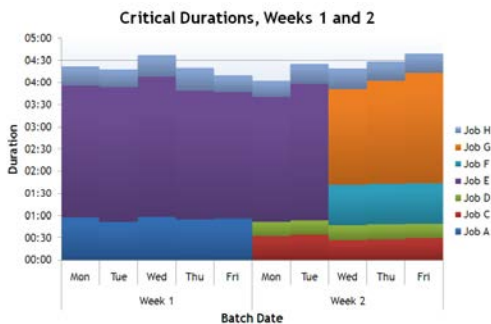


Fig.2 – Example of Sumerian visualisation for batch duration and composition

The outcomes you can expect

Our Batch Analytics will enable your organisation to significantly advance your batch optimisation objectives – ensuring you deliver continually high levels of IT performance for the business.

- **Holistic visibility of your batch function** - supplies you with the insight to understand the composition of your batch function and how this impacts performance.
- **Quantified recommendations to proactively optimise** – pinpoints areas for improvement, parallelisation and/or consolidation, achieving ongoing efficiencies.
- **Reduces risk and improves IT-business alignment** – with accurate forecasting to continually right-size provision of batch resources and prove sound processes for compliance needs.

Intelligent analytics, smarter decisions

Our Batch Analytics is just one of a suite of analytical capabilities we can apply to your trading systems. The Sumerian solution framework has a broad range of capabilities that may be applied to a number of your complex trading challenges. Other analytics we can supply include:

- Capacity Analytics
- Latency Analytics
- Performance Analytics
- Fill Rate Analytics
- Grid Analytics

More information

For further information on Sumerian or to arrange a demonstration of our services, contact us on 0141 229 7580, e-mail us at info@sumerian.com or visit our Web site at www.sumerian.com

