Modern Batch:
Who said batch is old-school?
It’s Time to Rethink Batch

When you hear the word batch, what comes to mind – Old? Legacy? Cookies? Probably anything but the word modern. For some reason, the way we think about batch hasn’t evolved as quickly as technologies that rely on it. Spend a few minutes reading this e-book and we’ll show you how batch is a critical part of modern, innovative business services.
Real-time, Streaming, Batch – What’s the Difference?

Let’s set the stage – what’s the difference between real-time, streaming and batch?

Applications operate in three modes:

**Real-time** – one app communicates with another app or human, and the response (or process) produces an immediate result for the second party, like ordering an Uber.

**Streaming** – data arrives or flows constantly, and something receives the data and then takes an action. Think smart utility meters or credit card fraud detection.

**Batch** – it’s everything else; arguably the mode where computers are most effective because they can operate at “machine speed” without having to wait for slow humans, devices or networks to communicate with another app or computer.
This Isn’t Your Daddy’s Batch

People often associate batch with long-running, overnight, low-priority or deferred (as in “I-don’t-need-to-do-that-now-so-I’ll-run-it-in-batch-later”) processes. That’s usually not the case though. So, let’s ditch the old-school connotation here. Many micro-batch and batch transactions are high-speed, iterative and efficient.

Traditional batch, like inventory processing and payroll, is still mission-critical for almost every business. But the real question is, ‘to batch or not to batch’ for modern business processes. Can (and should) new business services use a batch approach?

**Spoiler alert – the answer is yes. And we call it application workflow orchestration.**
What’s Application Workflow Orchestration?

It’s a mouthful, for sure. So, let’s unpack it. Business applications are at the heart of modernization initiatives, so we start there. The word workflow, as we use it here, implies a series of steps that make up a business service delivered by applications (managing the creation or deployment of application components is a different kind of workflow). And finally, orchestration means automated coordination and management.

In layman’s terms, the service delivered to a customer may be made up of several steps. Application workflow orchestration makes sure those steps are carried out in the correct sequence and at the correct time.
In modern environments, applications defer processing until a triggering event (or set of events) occurs. When that happens, connections to databases and/or other apps are required, logs must be captured, visibility into workflow relationships is needed, etc. – and it all needs to be automated. So, what does this look like?

**Use Case: Predictive Maintenance**

An energy company collects data from hundreds of IoT sensors on their oil wells to track performance. When a sensor indicates potential equipment failure, an engineer is sent to fix the problem before the well must be shut down and stops producing oil (also known as making money). But what if there are two wells to fix and only one engineer? Which one should be fixed first?

Leveraging an application workflow orchestration solution, the company can use tools in an automated fashion to examine things like well production trends and site location relative to engineers and parts – ultimately making complex decisions quickly.
Modern Batch Built for Digital Transformation

To automate complex business services, companies often rely on a set of basic (usually app-specific) scheduling tools that require custom development and limit scalability. That’s a huge problem for businesses focused on digital transformation, because speed is essential and operational excellence is non-negotiable.

Most look to adopt a DevOps approach to meet increasingly demanding application delivery requirements. While it does enable faster app delivery, it does little to improve insufficient ops tools. Having a solution that provides the functionality needed to run a production environment is critical. After all, apps spend most of their lives in production. An application workflow orchestration product does just that. However, not all products are created equal. Companies should look for a solution that:

- Supports a wide variety of platforms and apps
- Understands business service levels
- Visualizes connections among diverse components
- Quickly provides debugging and problem analysis data
- Offers users insights into their workflows
Managing Modern Batch with Control-M

*Application workflow orchestration made simple*

**Control-M** simplifies application workflow orchestration, making it easy to define, schedule, manage and monitor application workflows, ensuring visibility and reliability, and improving SLAs. With fully automated and event-driven workflows, it proactively prevents potential failures, ensuring digital services are delivered on time, every time. Ops, Dev and line-of-business users get:

- **End-to-end workflow connectivity**: any application, any data source, and all critical systems of record – mainframe to cloud
- **SLA Management** with intelligent predictive analytics
- **Auditing** for compliance and governance
- **Logs and output** with intelligent predictive analytics
- **Proven stability** with thousands of companies scaling from 10s to millions of jobs with zero downtime

See how you can put application workflow orchestration to work for you

Learn more >
Modern Batch: Application Workflow Orchestration

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