



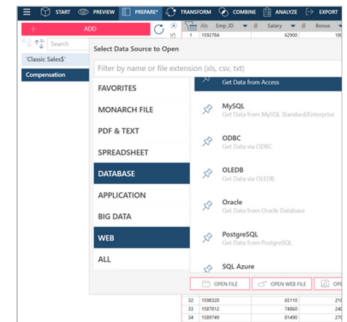
EXTRACT DATA FROM MAINFRAME REPORTS IN RETAIL OPERATIONS

Many [large-scale retailers](#) rely on mainframe computers to manage their financial, supply chain, inventory, purchasing, marketing, and fulfillment processes. Retailers must have efficient methods for integrating data generated on mainframes with other systems, including business intelligence (BI), customer relationship management (CRM), and marketing software. Many retailers apply automated or semi-automated workflows built using the [Altair® RapidMiner® data analytics and artificial intelligence \(AI\) platform](#) to extract, normalize, and cleanse data from so-called “green bar reports” generated by mainframes and prepare the data for use in other systems.

Why Mainframes?

Retailers must support a variety of high-volume applications, point-of-sale (POS) transaction processing, inventory management, supply chain management (SCM), and enterprise resource planning (ERP) systems. Mainframes are a perfect fit for major online, brick-and-mortar, and hybrid retailers thanks to their reliability, high security, and ability to handle millions of daily transactions. Their virtues include:

- **Reliability and Uptime:** Downtime in a retail environment can lead to significant revenue loss and customer dissatisfaction. Mainframes are designed to run continuously without failure, ensuring critical business functions stay up and running.
- **Scalability:** Retailers must contend with fluctuating workloads; for example, system loads can rise by orders of magnitude during peak shopping periods like the holidays. Mainframes can scale efficiently to support increased numbers of simultaneous transactions and users without sacrificing performance.
- **Security:** Mainframes offer advanced encryption, access controls, and auditing functions to ensure retailers comply with regulations like Payment Card Industry Data Security Standard (PCI DSS).
- **Cost Effectiveness:** Mainframes may appear expensive to casual observers. However, their very high transaction throughput – alongside a myriad of other capabilities – provides retailers with lower total cost of ownership (TCO) than alternative architectures.



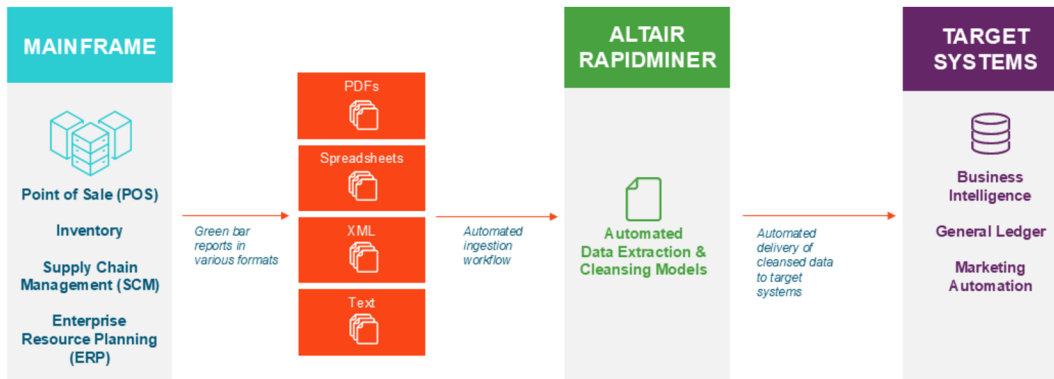
Altair offers self-service data preparation solutions that connect directly to structured and semi-structured data sources, including PDFs, complex spreadsheets, SQL databases, cloud data, and big data sources.

Learn more at:
altair.com/retail

- **Disaster Recovery:** Resilience is vital to retail businesses, and mainframes can recover data and resume operations quickly in the event of a system failure or natural disaster.
- **Energy Efficiency:** Mainframes consume less power compared to many distributed servers, which helps retailers reduce their carbon footprint and operating costs.

Extract Data From Any File Type

Mainframe-deployed retail systems generate green bar reports as very large PDF or text files that may contain thousands of pages. Parsing and cleansing this data reliably, accurately, and repeatedly is a formidable challenge. Altair RapidMiner gives retail businesses the ability to build auditable automation workflows that manage this task and direct the resulting clean data to other systems.



Business users without coding experience can build highly automated, audited workflows in Altair RapidMiner that accept data generated by mainframes in virtually any format; extract, normalize, and cleanse the data; and deliver it to a variety of target systems.

Altair RapidMiner also enables retailers to automate data extraction workflows for virtually any type of data source, including PDFs, complex spreadsheets, XML files, SQL databases, NoSQL databases, and cloud services. This flexibility is crucial for organizations that utilize many different types of enterprise software systems produced by multiple vendors. The platform empowers users to:

- Enable no-code, pattern-driven data capture of reports and other transactional business documents stored in virtually any format, including PDF, text, Microsoft® Excel®, as well as tabular sources; connect to business applications including Salesforce, Netsuite, Hubspot and ServiceNow; database and analytical sources including SQL Server, Oracle, Teradata, Redshift, BigQuery, Cassandra, MongoDB, and others.
- Save parsing and transformation rules, including filters, sorts, joins, and exports into reusable automated workflows.
- Link disparate datasets quickly through a friendly, visual interface and eliminate the need to create code-intensive SQL joins.
- Handle any type of text encoding.
- Connect to local network and cloud data sources.
- Automate and streamline data processing workflows, improve data quality, and centralize storage, making data more readily available to end users and enabling more informed decision-making.

Variety of Approaches

Altair RapidMiner provides several ways to build and manage data extraction workflows. And it offers tools that work at the desktop, workgroup, and enterprise levels.

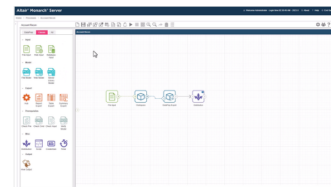
Businesses with substantial technical resources may elect to use Altair RapidMiner to deploy custom coded extract-transform-load (ETL) applications built in [their choice of the SAS, Python, R, and SQL languages](#) — or in a combination of those languages. Companies with fewer IT professionals may choose tools that allow business users without coding skills to build, deploy, and manage ETL workflows using a completely visual user interface.

The right approach will be determined by the business's specific needs in terms of the number and skill level of its personnel, implementation deadlines, technical requirements, and budget.

Reduce TOC with the Altair Units Licensing System

Licensing multiple software products can get expensive quickly — but not with [Altair Units](#), Altair's patented units-based licensing system. Units are scalable and shareable across an organization and give retailers the flexibility to run Altair software anywhere, the freedom to choose what software tools they need when they need them, and unparalleled value that maximizes use and minimizes cost.

With Altair Units, customers have full, instant access to Altair's technology portfolio — encompassing more than 150 Altair and partner products — and can run these applications on-demand locally, in the cloud, or in a hybrid setup.



Altair data preparation and transformation tools require no coding, making it easy for both technical and non-technical personnel to use them effectively. Users can centralize their enterprise data or models and automate data transformation and delivery workflows.

With Altair, retail enterprise users can access data from point of sale (POS), customer relationship management (CRM), inventory systems, shopping patterns, supply chain opportunities, product pricing, and eCommerce sites to better understand customer sentiment.

Learn More: altair.com/data-prep

Contact us at:
altair.com/contact-us