




Increase production, reduce costs, and improve quality



Manufacturing Does Hadoop 

Manufacturing managers try to do three basic things: increase volume, reduce costs and improve quality. With the right technology, all three can be accomplished simultaneously. Today, many manufacturers are leveraging real-time data and analyzing historical data on Hortonworks Data Platform to move beyond reactive error avoidance toward proactive process improvement.

Manufacturing applications include:

Assure Just-In-Time Delivery of Raw Materials

Manufacturers try to minimize inventory levels by scheduling just-in-time delivery of raw materials, but even the smallest miscalculation can cause stock-outs that lead to production delays. Sensors and RFID tags can capture supply chain data, but this creates a large, ongoing flow of data.

Hadoop can cost-effectively store this unstructured data, providing manufacturers with greater visibility into their supply chain history, and greater insight into longer term supply chain patterns. This gives manufacturers more lead time to adjust to supply chain disruptions, as well as helps reduce costs and improve margins on finished products.

Control Quality with Real-Time and Historical Assembly Line Data

High-tech manufacturers use sensors to capture data at critical steps in the manufacturing process, which is useful for detecting problems as they occur. However, there may be problems that are too subtle to detect, but which still lead to after-purchase malfunctions.

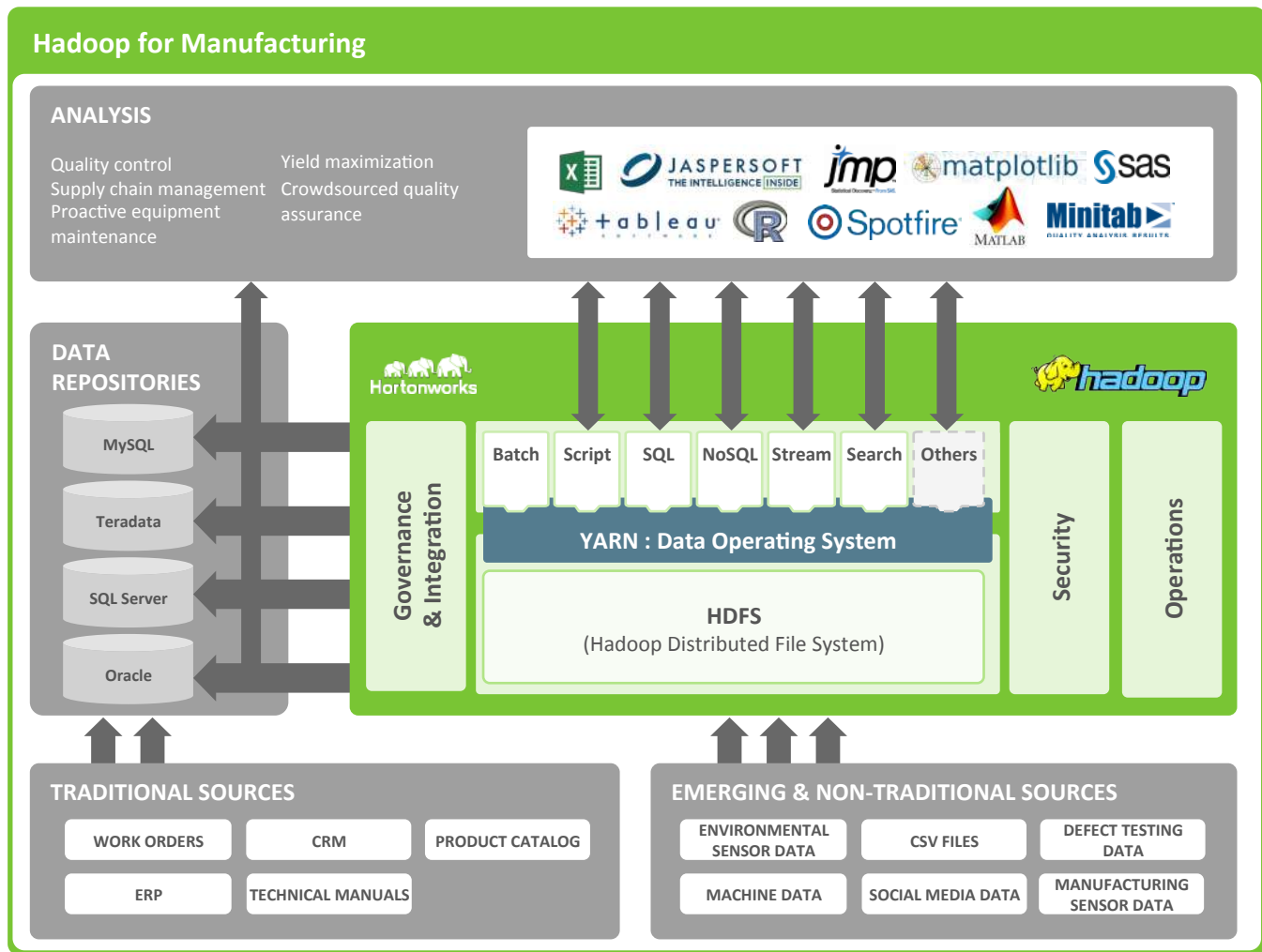
When a product is returned with problems, the manufacturer can perform forensic tests on that product, and then compare the resulting data to sensor data at the time of original manufacture. This provides visibility across a large number of products, which can help elevate process and product quality to levels not possible in a data-scarce environment.

Avoid Stoppages with Proactive Equipment Maintenance

Today's manufacturing workflows involve sophisticated machines coordinated across precise, predefined steps. One machine malfunction can stop the entire production line—but premature maintenance can also be costly. Somewhere in between, there's an optimal schedule for maintenance and repairs that's not too early, and not too late.

Machine learning algorithms can compare maintenance events and machine data for each piece of equipment to its history of malfunctions. These algorithms can derive optimal maintenance schedules based on real-time information and historical data. This can help maximize equipment utilization, minimize P&E expense, and avoid surprise work stoppages.

Hortonworks Data Platform 2.0



Apache™ Hadoop®: Enterprise-class, Enterprise-ready

Apache™ Hadoop® has evolved significantly to meet enterprise requirements, and now encompasses the functional areas that are foundational to any platform technology.

Data Management

Store and process vast quantities of data in a scale-out storage layer.

Data Access

Access and interact with your data in a wide variety of ways—spanning batch, interactive, and real-time use cases.

Data Governance and Integration

Quickly and easily load data, and manage according to policy.

Security

Address requirements of Authentication, Authorization, Accounting and Data Protection.

Operations

Provision, manage, monitor and operate Hadoop clusters at scale.

Hortonworks. We do Hadoop.

Hortonworks is a leading commercial vendor of Apache Hadoop, the open source platform for storing, managing and analyzing Big Data. Our distribution of Apache Hadoop, Hortonworks Data Platform, provides an open and stable foundation for enterprises and a growing ecosystem to build and deploy Big Data solutions.

Hortonworks is the trusted source for information on Hadoop, and together with the Apache community, Hortonworks is making Hadoop an enterprise data platform. Hortonworks provides unmatched technical support, training and certification programs for enterprises, systems integrators and technology vendors.

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