

# BAT Mexico Ignites Quality with Apriso

The Monterrey, Mexico plant for British American Tobacco is one of the most modern manufacturing facilities in all of Latin America. It produced over 26 billion cigarettes in 2009 spread over 1,000+ SKUs, representing a very high level of volume and complexity. Competition is fierce in this heavily regulated market, so British American Tobacco Mexico (BAT Mexico) must always look for ways to enhance efficiency – especially since consolidating in 2006, when the plant began serving both the domestic Mexican and Canadian export markets.

BAT Mexico was burdened with a complex technical and support infrastructure – it was managing four disparate Manufacturing Execution Systems (MES) that lacked functionality to cope with new requirements. Specific objectives for a new MES included a higher degree of flexibility, reduced complexity, greater efficiency and ease of use. Further, BAT Mexico had a need to standardize best practice processes, where appropriate, to support the company’s push for global continuous quality improvement.

## A Platform for Manufacturing Operations Management

BAT Mexico selected Apriso as their solution for manufacturing operations management. The project’s scope included shop floor management processes for SMD, PMD, FMD, Quality and Maintenance Intelligence. The project began in 2009 and was completed in 2010, with a successful go live and smooth transition.

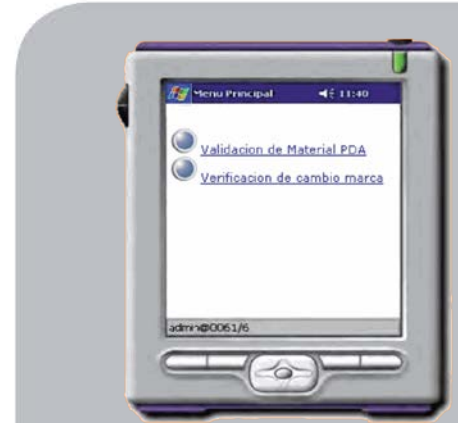
Jair Carlos, Factory Manager at BAT Mexico, commented: “I am very happy with the benefits so far, including improved brand change process, better process control, and reduced waste, among other benefits. The system is very flexible, changes are not so expensive, and factory people believe in it. I have no doubt that this is just the beginning.”

## Continuous Process Improvement

Ever increasing global quality standards necessitated a re-evaluation of how manufacturing processes were performed, managed and improved at BAT Mexico. As best practices were identified, it was necessary to replicate and standardize these processes to other parts of the business, to help further improve quality performance. Any impediment to process improvement had to be removed. If it was too much work to change a process, then there was a concern that the improvement would not occur.

“Unnecessary complexity was eliminated and a lot of time previously spent working in the old system or paper is now used to add value in terms of Quality and Efficiency,” stated Nydia Cavazos, SMD Cell Manager at BAT Mexico.

“From my point of view, Apriso has come to simplify the processes and improve controls. The users in the factory see Apriso as a facilitator of the process instead of an additional work load,” commented Hector Tamez, Finished Goods Manager at BAT Mexico.



## Benefits Achieved

- Improved Quality Control
- Faster availability of OEE and AMO information for analysis
- Improved control and efficiency when performing brand changes on the line with directed user interfaces on mobile, hand-held devices (see image above)
- Increased autonomy to perform future process and system changes internally, with internal resources
- Reduced complexity with current IT infrastructure and support model

## Real-time Visibility to Operational Performance

A big benefit of implementing Apriso is that each application now shares a unified data model. Business processes can now be orchestrated on an “end-to-end” basis, with operations performed across multiple functions. As commands are executed and data is collected, it is available – in real-time – to any other Apriso application, dashboard or user interface. Now Key Performance Indicators (KPIs) are readily visible to track operational and inventory metrics; data is readily updated as production, market or competitive shifts occur; appropriate thresholds are quickly adjusted to ensure relevance. Better data helped improve operational performance, increase efficiency of root cause analysis and elevate quality for a lower cost, resulting in greater customer satisfaction.

“With the MES Upgrade project, we accomplished the implementation of Apriso, which now provides real-time information about the processes both in a detailed ‘shop floor’ level and also at a managerial level; you only need a PC to access and have a ‘look’ at the process. Also, there is an important benefit on the day-to-day activities, because it has tools that give autonomy to the operators to allow them to identify improvement areas,” continued Nydia Cavazos, SMD Cell Manager at BAT Mexico.

## Project Benefits

BAT Mexico performed a benefits analysis to justify their Apriso implementation, which included the identification of both tangible and intangible benefits. Some of the tangible benefits include a reduction of overtime wages (20-50%), fewer FTE’s to support local systems, waste reduced by up to 10% and other productivity improvements from the removal of manual processes.

Improved quality control was clearly the biggest intangible benefit, which has been achieved by leveraging Apriso as part of their SPC solution. New SPC charts are now automatically refreshed online (see image at right), providing better information to control processes. These charts, displayed through a single dedicated screen, also have several warnings that let operators know when a variable is out of control limits. BAT Mexico’s SPC configuration led to faster reactions to potential Quality issues, better process control, reduced tipping defects or detached filters and improved dilution control. Automated Quality reports replaced manual processes. An intelligent e-checklist now guides operators through brand changes, making the process more efficient and accurate, reducing the possibility of mixed product or materials.

Apriso is now an integral component to BAT Mexico’s continuous process improvement program, helping to offer competitive advantage through greater operational excellence, reduced costs and greater operational responsiveness.

## About Dassault Systèmes & DELMIA

Dassault Systèmes, the **3DEXPERIENCE** Company, serves 170,000 customers across 140 countries, providing virtual universes for sustainable innovation. Dassault Systèmes’ DELMIA brand offers products that connect the virtual and real worlds. As part of DELMIA, the Apriso product portfolio helps manufacturers transform their global operations to achieve and sustain operational excellence. Learn more at [apriso.com](http://apriso.com).

*“With the MES upgrade project, we accomplished the implementation of FlexNet, which now provides real-time information about the processes both in a detailed ‘shop floor’ level and also at a managerial level; you only need a PC to access and have a ‘look’ at the process.”*

**Nydia Cavazos,  
SMD Cell Manager,  
BAT Mexico**

