

# PREACTOR MULTILAB: Inventory managing and delivery performance

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*PREACTOR can really optimize the factory process and assist the company in to strategic decision-making. Also we had great customer service offered by ACCERA team during the project and in the support after.*

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IT Coordinator -  
MULTILAB

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## INTRODUCTION

Founded in 1988 in Porto Alegre, Multilab Industry and Trade of Pharmaceuticals is located in São Jerônimo (RS). The location concentrates all production lines and centralizes the logistic operations. Multilab manufactures generic and brand-name drugs, and also OTC (Over-the-counter) and prescription drugs, sold in retail packaging or directly to hospitals.



With around 700 employees, Multilab is divided into four units. In the first unit, medicines presented in the form of tablets, capsules, semi-solids and liquids are produced; in the second unit, capsule and powder medicines are produced. The third unit consists in a R&D Laboratory and the fourth unit works with injectable medicines and is responsible for manufacturing medicines intended exclusively for hospital usage.

With the mission of developing pharmaceutical products that meet the needs of the population Multilab distributes its products throughout Brazil. Constituted 100% by national capital, the company estimates a turnover of U.S. \$ 180 million for the year 2009 through the commercialization of more than one hundred products.

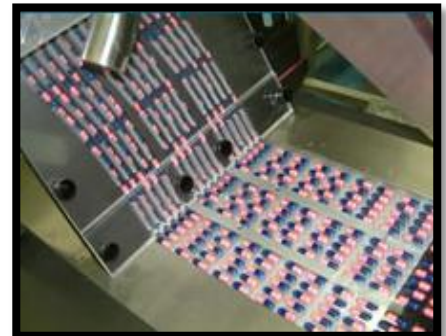
## THE CHALLENGE

Multilab has its production process complexities associated with drugs production, interfering directly in the scheduling activity. The rigorous quality control, essential in this business sector, introduces Standard Operating Procedures to be considered and followed during the programming of some types of medications. Accordingly, tests with samples of materials, special care with process times due to high perishability of the drugs and the high specialization required for some employees are some of the variables that are part of the process.

Maintaining high inventory levels was seen by Multilab as the only way to deliver orders in the precise time, considering the low agility of the process-tracking and unforeseen capacity viewing. In order to meet important demand and achieve success in bidding, this action was shown as the most effective at the time.

The costs of maintaining inventory have always been very significant in Multilab, especially because of the outlay associated with special handling care and control and the high perishability of some components. Added to this, the high setup times and the need to synchronize materials and components are challenges to ensure a continuous production process. All these variables make the activity of production scheduling even more complex.

Within these constraints, which are essential in ensuring good results, the routine of manually scheduling the production of Multilab proved to be challenging. This scheduling, that was done weekly, spented much time and was not robust enough to consider all existing constraints in the process. With this, Multilab suffered from a low level of service in public tenders, imbalanced production lines, and also a production process planning sector working manually and with little amount of information available. The manual procedure used in the production scheduling did not provide the agility necessary to follow the progress of production. Without a fast factory reprogramming, Multilab had difficulty in responding to market fluctuations and ordinary problems that occur daily.



For these reasons, the Multilab sought to implement an APS, allowing the simulation of scenarios and better management of their productive capacity. After reviewing alternatives in the market, the company chose Preactor as a specialist tool in Advanced Production Programming, and Accera Supply Chain Solutions to provide the software and perform the implementation consulting.

The main purposes of the project done in Multilab were: automation of the scheduling process, increasing of production synchrony, decreasing of intermediate inventory, setup times optimization and better overall performance in customer service.

## THE SOLUTION

After selecting the software as Preactor APS and ACCERA Supply Chain Solutions as implementation consulting, the design of the solution at Multilab has begun. After a major



process mapping and the design of an integrated PPCP (Planning, Programming and Production Control), it was necessary to raise and review information of resources and manufacturing routes with setup and operation times. The setup matrices were designed considering the fact that the setup times at Multilab directly depend on the production sequence and the selected resource. After this initial survey, the entries were in a format suitable for incorporation in Preactor.

At the same time, the integration procedures between the Preactor and the Multilab corporate system were performed. First, Preactor system was integrated with the ERP tool of the company, having suitable operation and generating the initial results as expected. Then, to accommodate the strong growth of Multilab, the company's board decided to implement ERP SAP R3 (ECC 6.0), and the integration with Preactor has been redirected to get the data from this new corporate system. Since the first months of use, it was possible to observe gains from the project. The ability to view the occupation of each work center, highlighting the details through different views and custom colors, potentiated the balancing of production lines. The reports generated by the Preactor also brought significant gains related to better organization of the operations in the factory. The tool allowed the scheduler to release the precise sequence of tasks through reports for all productive resources. Some of these reports were created with a pull scheduling logic, aligned with the concepts of Lean Manufacturing to ensure the timing and supply of production lines.

## RESULTS

The automated scheduling generated by Preactor potentiated the planning process conducted in Multilab. Preactor has generated impressive results that brought a new reality to Multilab by significantly reducing the time required to plan production and generate scenarios of reliable scheduling.

Offering a global view of the production process and factory occupation, Preactor enabled Multilab programmers to raise their total control over the plant. Acting through advanced analysis of scenarios by viewing what optimizes production and manufacturing, they are able to generate the best strategic results for the company.

*Biding Service  
Performance  
increased from  
78% to 94%.*

With the new programming tool, delivery orders are now handled by a systemic plan. The confidence that the company started to take in its scheduling was quickly passed on to customers through accurate delivery estimation. With this, Multilab achieved excellent results regarding the

performance of the procurement service, that rose from 78% to 94% with the use of Preactor.

Moreover, the production synchronism improved the occupation of resources and resulted in a better balancing of production lines. Consequently, the amount of material in the process suffered a significant reduction that can be detected by observing the current situation of the factory. The materials are now required only at the right time and in the necessary quantities, subject to a fine sequence generated by Preactor. Moreover, the stock of raw material decreased from about 80% through the integration of programming. Additionally, a 30% reduction in setup times can be observed due to the optimized sequence generated by Preactor.

*80% decrease in raw material inventory and 30% setup times reduction.*

The main gains achieved by Preactor are related to better inventory management, the planning raw materials purchases, reduction in setup times and enhanced service performance to bidding. Positive results like these have influenced directly on the production process and the financial results of Multilab, proving the success achieved through the Advanced Scheduling project.



More information can be obtained in:

**[www.accera.com.br](http://www.accera.com.br)**

