

## Case Study

### Company Name:



Norampac Drummondville



**Industry:** Design and production of corrugated packaging.

**Environment:** In 1992 Cascades, through its division Norampac, has acquired a plant located in Drummondville that specialises in the design and production of corrugated packaging. The plant has a production capacity of 1 billion sq. ft. per year. The plant manufactures corrugated boxes for medium and large volumes in addition to providing storage services, special coatings for different types of packaging materials and high resolution printing.



**Mandate type and description:** Computerized Inventory management process improvements.

**Operational context:** Maintaining production equipment in operational condition is a major stake for the efficiency and competitiveness of the plant. In this context, the local organization has chosen to implement Guide TI from COGEP as the software for Computerized Maintenance Management System (CMMS). According to Jean-Francois Cartier, Director of Operations, “Guide TI provides more versatility and more flexibility than all major CMMS. We are very satisfied with the results.”



**Initial problem statement:** Spare parts inventory management has always been a necessary evil. Norampac manually managed its min-max for nearly 15,000 items. There were many shortages in spite of several million dollars invested in inventory. Norampac had no tools to help properly manage its inventory.

**Solutions:** In October 2010, Norampac Drummondville began using the inventory management parameters optimization software offered in Web mode by the company IMAFS Inc.. It is the outcome of a partnership between COGEP and IMAFS to allow COGEP’s customers to improve the management of their inventory. Norampac Drummondville agreed to participate as a pilot site for this partnership.

IMAFS SaaS solution is fully integrated with Guide TI. IMAFS SaaS performs the optimization of inventory management parameters by calculating the optimal min-max to meet customer service objectives with the least possible inventory. IMAFS SaaS offers Norampac executives’ inventory management dashboards as well as all the functionalities for handling exceptions.

**Results:** Between October 2010 and February 2011, the rate for the availability of maintenance items increased from 60% to 95%. This improvement has had a major impact on keeping the production equipment operational, in addition to having an impact on maintenance activities. There is less time wasted and there are fewer maintenance tasks that must be postponed or performed in two steps due to part shortages.

These exceptional results have been achieved with an increase in inventory of about 5% within the implementation phase. Moreover, the simulation results that were completed in IMAFS SaaS - Guide TI indicated that Norampac could reduce its inventory by more than 30% over the next few months while maintaining good levels of service and the availability of parts.

**Project schedule:** The first phase of this project consisted of ensuring that good data was being used for the inventory optimization. Teams from Norampac, COGEP and IMAFS worked collectively to validate the data and make any necessary adjustments. IMAFS and COGEP are experienced for this type of exercise and have simplified the work for the people from Norampac.



In the next phase, the functionalities of IMAFS SaaS allowed for completing a classification of Norampac's items that reflects criticality, frequency of consumption, consumption value, life cycle status (birth, maturity, obsolescence) and item status. Karl Ouellette, Supervisor of Maintenance for Norampac, had never seen such powerful and flexible software for efficiently categorizing the maintenance items. An internal effort was completed to validate classes. This effort brought great value since item classification is the foundation for a common language between the supply and maintenance departments.

IMAFS SaaS measured the parts availability level per item class at the start the project. Executives from Norampac Drummondville then established service targets by classes and product families. Thanks to Guide TI and IMAFS SaaS, the executives valued having not only a method to manage customer service, but having the min-max that will allow achieving the target levels. Simulation tools offered in IMAFS gave the ability to estimate the impacts on inventory and service before launching the program.

IMAFS SaaS scientifically and dynamically calculated min-max that were used to supply the replenishment that is completed in Guide TI. The min-max are updated monthly, taking into account seasonality, demand growth and decline, lead time and service levels objective variations.



In the beginning, Norampac's team invested 1 to 2 additional days per week to better control its inventory. The results justify the effort and they are pleased to know that, over time, the work related to replenishment will become again more automated, but with good dynamic results.

Mr. Jean-Francois Cartier, Director of Operations, revealed that he greatly appreciated being able to observe, according to his needs, all inventory management results such as the evolution of service levels, inventory levels, surplus and others metrics that finally give the impression of better controlling inventory. "We did not have any performance indicators for the management of inventory before Guide TI offered us this possibility with IMAFS SaaS. I am very pleased with these new functionalities. "

There is a definite potential to further reduce inventory by more than 30% without affecting the service. A concrete action plan was developed with the internal team to achieve these results.



The project's success to date and expected for the future are very much the result of the efficient work from the resources of Norampac, COGEP and IMAFS. According to Robert Lamarre, president of IMAFS with over 30 years experience in project management, the involvement and dedication of resources for the implementation were remarkable and all the successes belong to the team.

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