

frePPLe

an open source Production Planning solution

Manufacturing companies, large and small, more than ever face the challenge to increase the effectiveness of their production processes and supply chain. Planning is an essential process in this continuous search for optimization and efficiency. It combines knowledge and rules about the production process with information about the demand. An increasingly volatile demand needs to be balanced with a constrained supply in a fast and intelligent way.

The complexity and importance of the planning soon exceed the capabilities of a spreadsheet or ERP system, and intelligent system support is required to assist the planners in their decisions.

FrePPLe brings such advanced planning capabilities as an integrated open source application framework, quickly implementable and affordable even for small companies.

Open source Advanced Planning and Scheduling solution

In all software domains innovative open source projects are challenging commercial proprietary solutions.

FrePPLe is a leading open source application framework in the area of APS tools, delivering an open and flexible solution for a wide variety of planning needs.

Supply Planning

FrePPLe has rich modeling capabilities that accommodate discrete manufacturing environments in make to stock, make to order, or configure to order modes.

The solver generates material and capacity feasible plans that maximize the on-time delivery of the demand. It offers a wealth of functionalities to model various business rules and constraints, such as:

- fixed and variable lead times
- order prioritization
- minimum, maximum and multiple batch sizes
- alternate operations, resources and materials
- date effective material and capacity usage

- availability calendars
- assembly coordination
- pegging from raw material to demand
- resource setup matrices and conversion times
- co-products
- different procurement policies
- constrained and unconstrained planning mode
- scripting capabilities to implement customized constraints and business logic

FrePPLe can be used to provide accurate delivery promise dates for new customer orders, taking into account the current production status and all constraints.

Demand forecasting

FrePPLe uses historical sales or consumption data for statistical forecasting. It applies a set of standard time series analysis methods (such as moving average, single/trend/seasonal exponential smoothing, Croston) and selects the most suitable method.

FrePPLe also offers profiling capabilities to bring the forecast to the right time granularity for production planning.

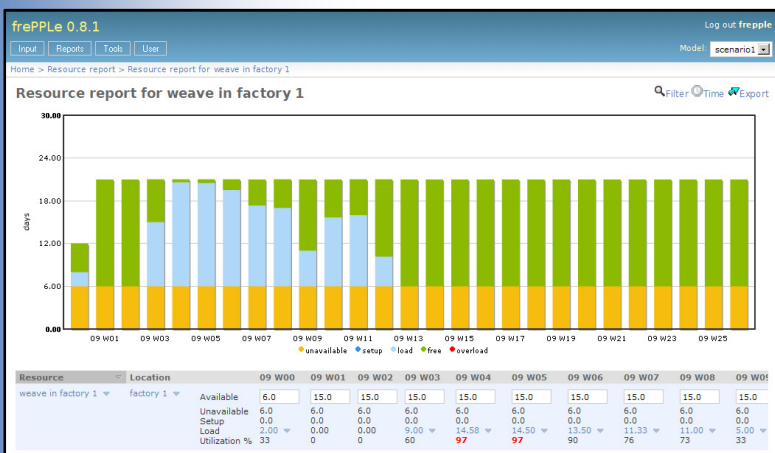
Additionally, it provides customer order netting functionalities to calculate the net forecast taking into account existing order book.

Integrated data maintenance

Planning relevant data information can be created and maintained in the planning tool itself. You're always a single click away from editing the master data – simple and effective.

Integrated reporting

Powerful charts are available to visualize the results. Customized dashboards report the Key Performance Indicators to management in an intuitive way.



frePPLe

a free Production Planning Library

What-if scenario analysis

Users can easily create what-if scenarios. Alternatives can easily be analyzed without disturbing the production system.

Easy to use

The user interface is designed around simple and intuitive workflows, driven directly by day to day planners' needs.

Integration with office tools is easy and effective.

Flexible and extendible

FrePPLe is designed to be extendible.

Customers can extend the tool with their own data models, business rules and reports.

Third parties can create commercial or open source add-on modules with additional optimization algorithms, industry specific solutions, etc.

Support for internationalization

FrePPLe is available in English, Dutch and Italian. Translations to additional languages can easily be added.

Benefits

FrePPLe and its network of partners can deliver a fast implementation and a fast return on investment.

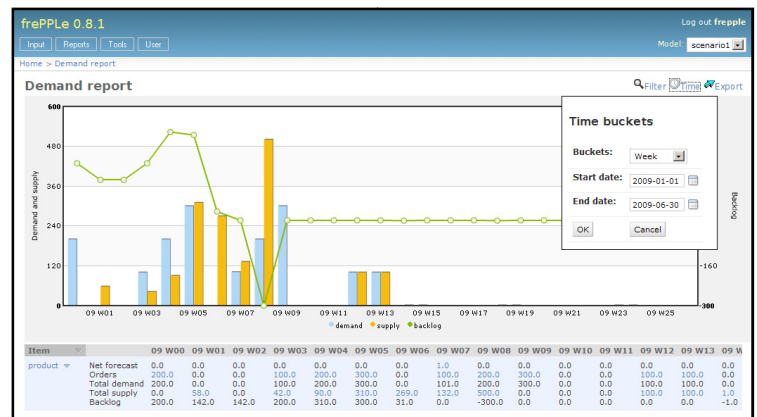
Typical business benefits include:

- Reduced lead-times
- Improved order fill rate
- Improved order delivery date accuracy
- Reduced inventory
- Improved asset utilization
- Improved planner productivity

About frePPLe bvba

FrePPLe is a company located near Brussels in Belgium. We develop and maintain the frePPLe product and also offer related customization, development and training services.

FrePPLe is connected to a rich network of partners who can provide local implementation services and specific expertise.



Technical specifications

FrePPLe is built on a set of proven, scalable and secure open source components.

- Thin, web-based user interface
- Supported web browsers are Internet Explorer, Firefox, Safari, Opera and Chrome.
- The web server application is deployed on Apache web server, and is based on the Django web application framework
- The solver application is implemented in C++, extended with a rich scripting API in Python.
- Oracle, PostgreSQL, MySQL and SQLite are supported databases
- Supported on Linux and Windows

FrePPLe is released under the GNU lesser general public license (LGPL), and its complete source code is available.