



Open source supply chain planning software

Overview and introduction

FrePPLe - what? who?

- FrePPLe
 - Leading open source supply chain planning software
 - Ranked #1 in google searches for free & open source software in this domain
- Company
 - Based out in Brussels (Belgium) & Paris (France)
 - Team with an average of 15 years of experience implementing production planning and supply chain optimization solutions



FrePPLe – who are our customers ?



Electric motors and generators
Finland



Redefining Ingenuity
Military contractor
USA



Construction supplies
Saudi Arabia



Precision Aerospace, Inc.

Metal machining for aerospace
USA



Where everything connects

Disposable medical devices
Italy



Composite materials and structures
Global



Agence de Services
et de Paiement

Public sector
France



serious about quality

Building supplies
Zimbabwe



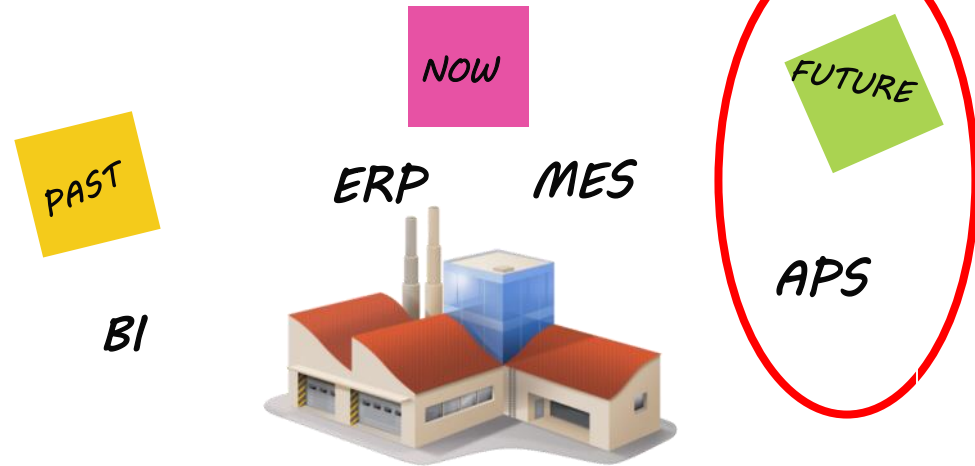
Instrumentation, control and power cables
Italy

FrePPLe

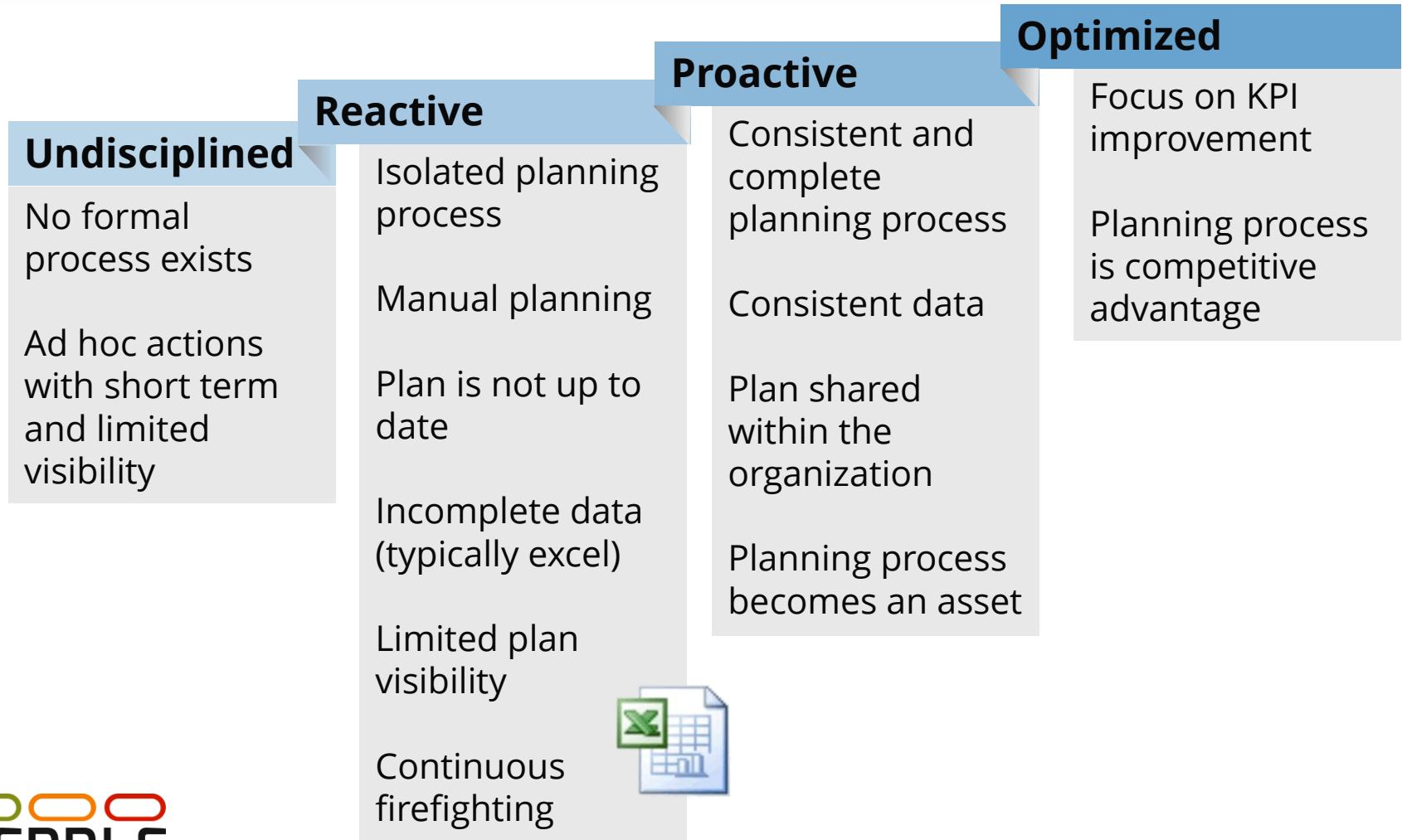
- **FrePPLe is an Advanced Planning and Scheduling tool (APS)**
 - Organizing future activities
 - Short term scheduling
 - Mid-term planning
 - Integrates with other business applications



- A **Business Intelligence** solution with powerful reporting on past performance
- An **Enterprise Resource Planning** system controlling all transactions
- An **Manufacturing Execution System** capturing ongoing activity on the shop floor



Planning process maturity model



Value proposition

- FrePPLe brings your planning process to a new maturity level
- Direct impact on business and fast ROI
 - Improved planner productivity
 - Reduced lead-times
 - Reduced inventory
 - Reduced work in progress
 - Improved delivery date accuracy
 - Improved asset utilization
 - Agile response to market demand



Processes



Demand Forecasting

- Computes and manually review your forecast

Inventory Planning

- Calculates your safety stock and reorder quantities

Forecast Netting

- Subtracts the actual orders from the forecast

Production Planning

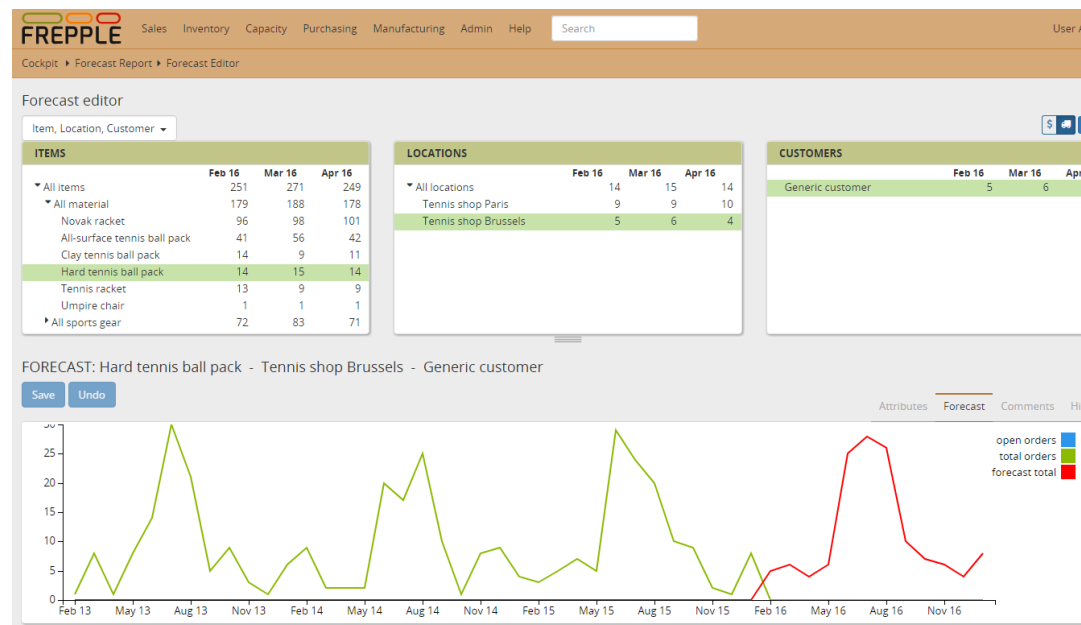
- Creates supply plans that are constrained by lead time, material availability and capacity

Output

- Generates purchase orders, distribution orders and manufacturing orders for ERP

Demand forecasting

- Forecasting algorithm analyzes the demand history and generates a baseline forecast for the future
 - Implements a pick-best choice among different forecast methods to select the one giving the lowest forecast error:
 - Intermittent
 - Constant
 - Trend
 - Seasonal & trend
 - Moving average
- Review at aggregate levels
- Adjust the forecast:
 - Override forecast
 - Correct demand history
 - Force the forecast method



Inventory planning

- Compute safety stock and reorder quantity:

- System proposal:
 - Economic order quantity - Wilson formula
 - Safety stock calculated for desired service level
- Constrain:
 - Min and max quantity
 - Min and max period of cover

- Ability to define rules at aggregate levels

- Users can override the values per period

The screenshot displays the FREPPLE Inventory Planning interface. At the top, there's a navigation bar with 'Sales', 'Inventory', 'Capacity', 'Purchasing', 'Manufacturing', 'Admin', and 'Help'. Below this is a table of inventory items with columns for Item, Location, Inventory Status, Lead Time, Cost, Stockout, Local For, Depend, Safety Str, Reorder C, On Hand, Overdue, Open Sal, Open Pur, and Open T. The table shows items like 'All-surface tennis ball pack' and 'All-surface tennis shoes' at various locations.

Below the table is a chart titled 'Buffer All-surface tennis ball pack @ Tennis shop Paris'. The chart shows inventory levels over time from Feb 16 to Jan 17. The legend includes Start inventory (green), Produced (blue), Consumed (orange), Reorder quantity (yellow), and Safety stock (red).

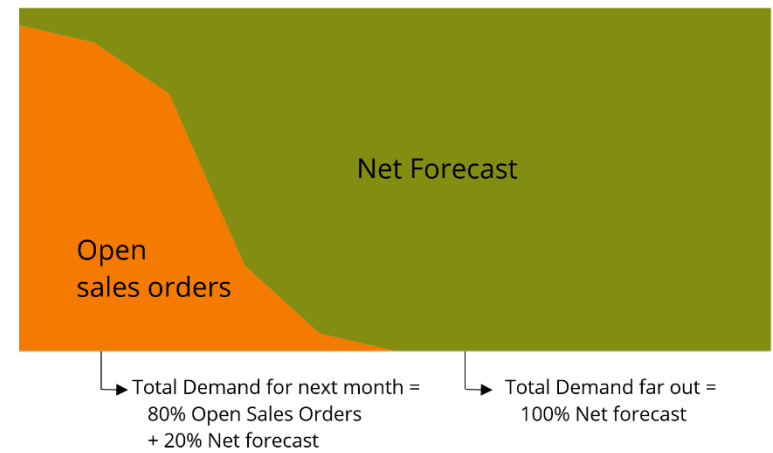
Below the chart is a detailed data table with columns for months from Feb 16 to Jan 17. The table includes rows for Reorder quantity, Reorder quantity override, Safety stock, Safety stock override, Start inventory, Local demand, Dependent demand, Total demand, Confirmed supply, Proposed supply, Total supply, and End inventory.

At the bottom, there are two panels for configuration: 'Safety stock' and 'Reorder quantity'. The 'Safety stock' panel shows 'Computed safety stock: 9 units' and 'Service level: 95 %'. The 'Reorder quantity' panel shows 'Computed economic reorder quantity: 168 units' and 'Constrained by: Quantity between: [] and [] units'.

Forecast netting

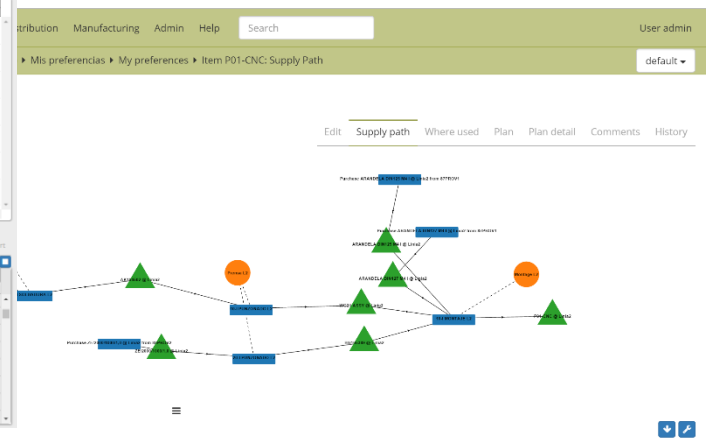
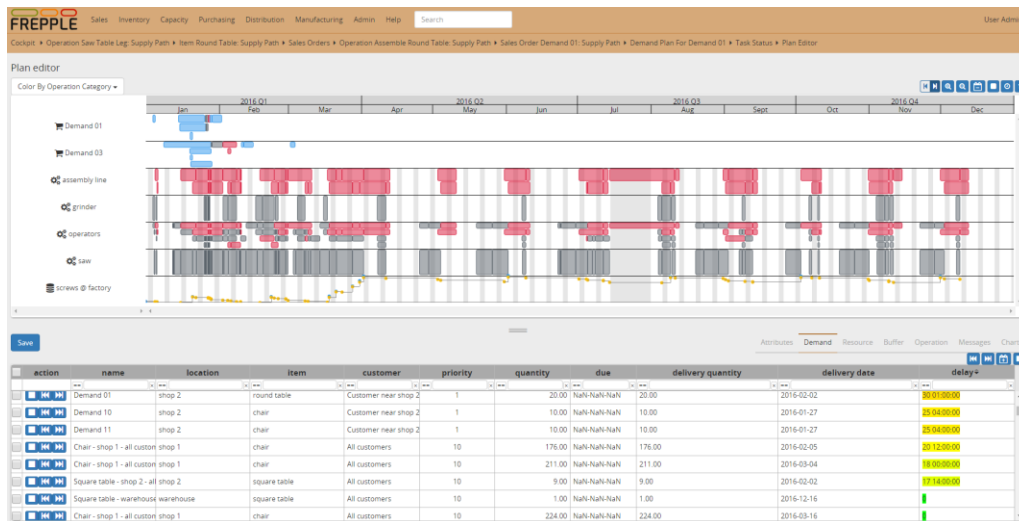
- Net open sales orders from forecast
 - Short term demand consists primarily of customer sales orders.
 - Longer term demand consists primarily of sales forecast
 - The forecast consumption logic reconciles both into a total demand signal that is consistent and complete across the complete horizon

■ Gross forecast:	100
■ Orders already received:	20
> Net forecast:	80



Production planning

- FrePPLe models the bill of distribution, bill of material, resources, and suppliers for the raw materials
- Generates constrained or unconstrained plans
- Interactive Gantt chart to adjust the proposed plan

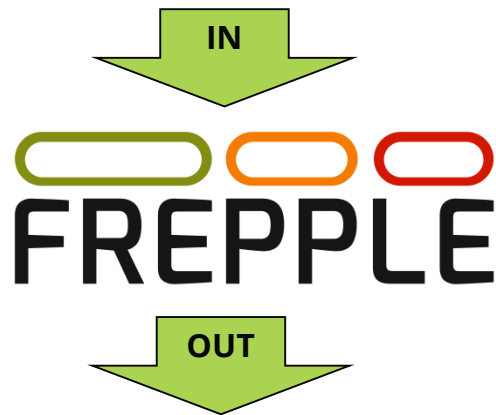


Depth	Operation	Quantity	Location	Type	Duration	Duration P	Resources
◀ 0	10-I MONTAJE L2 ▶	1.00	Linia2	time_per	0	3:20	Montage L2 ▶
○ 2	Purchase ARANDELA DIN125 M4	1.00		purchase	1 00:00:00		
○ 2	Purchase ARANDELA DIN127 M4	1.00		purchase	7 00:00:00		

Data integration



Locations
Items
Suppliers
Resources
Customers
Bills of material
Bills of distribution

Inventory
Sales orders
Open manufacturing orders
Open purchase orders
Open distribution orders



Proposed new purchase orders
Proposed new manufacturing orders
Proposed new distribution orders

Flexible integration capabilities

- Excel upload & download
- CSV upload & download
- Standard connectors for
 
- Web service (REST API)
- Database-level integration

Editions

Community Edition

100% open source

- Open source under AGPL license
- Full source code provided
- Mailing list as support

Cloud Edition

Hosted in the cloud

[See pricing](#)

- Cloud service
- Extra functionality and professional support
- Pricing by module and number of active item-locations

Enterprise Edition

Hosted on premise

[See pricing](#)

- On premise installation
- Extra functionality and professional support
- Pricing by module and number of active item-locations

Try it out yourself

Online demos can be accessed at:

<https://manufacturing.frepple.com>

<https://distribution.frepple.com>

User : admin

Password : admin