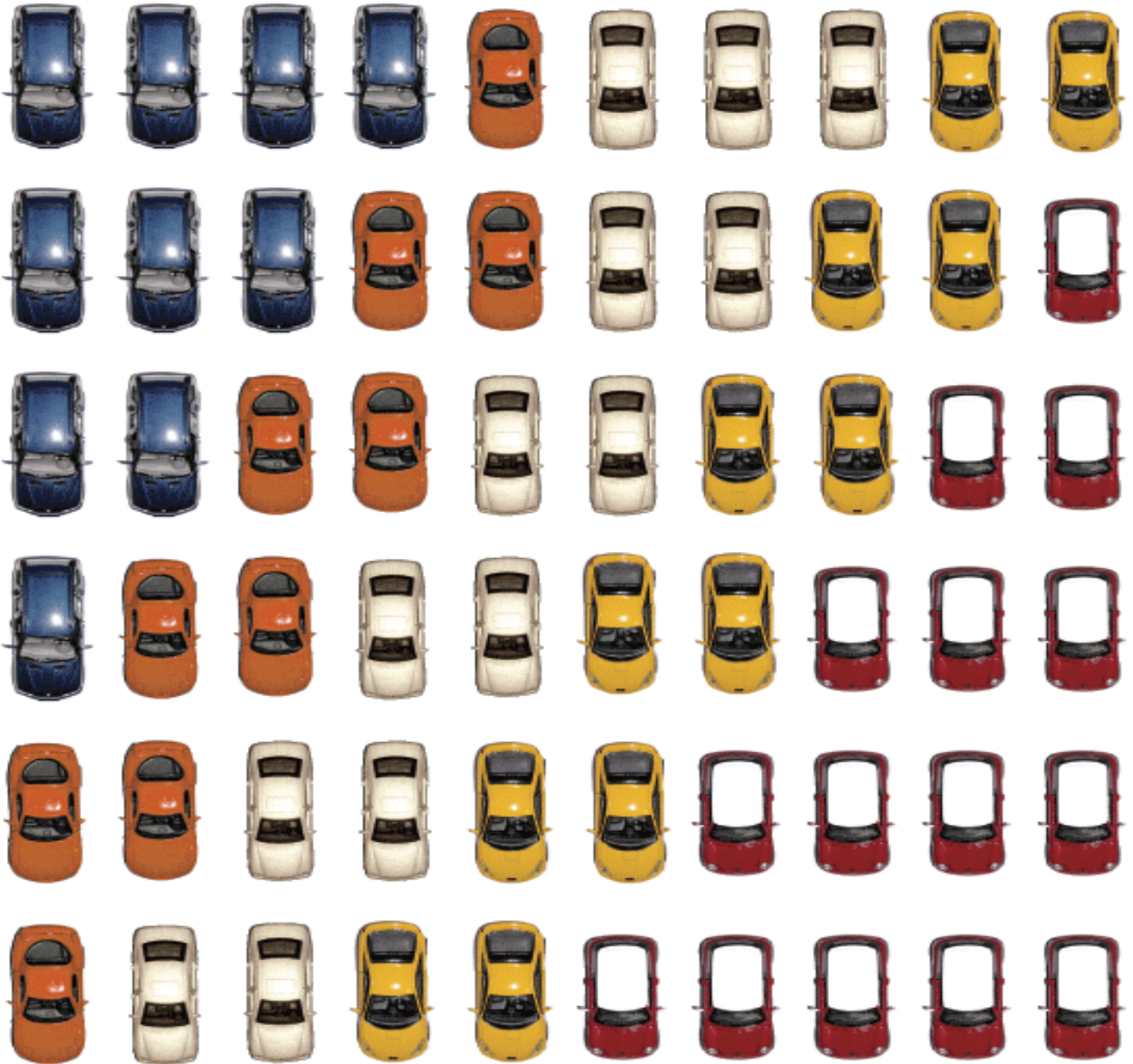


SMOOTH Production. MEET Deliveries. SHRINK Inventory. REDUCE Lead time.



SLASH Cost.

Sequencing & Scheduling for the 21st Century

Optessa
MLS

(formerly NETAPS)

Today's Assembly Lines

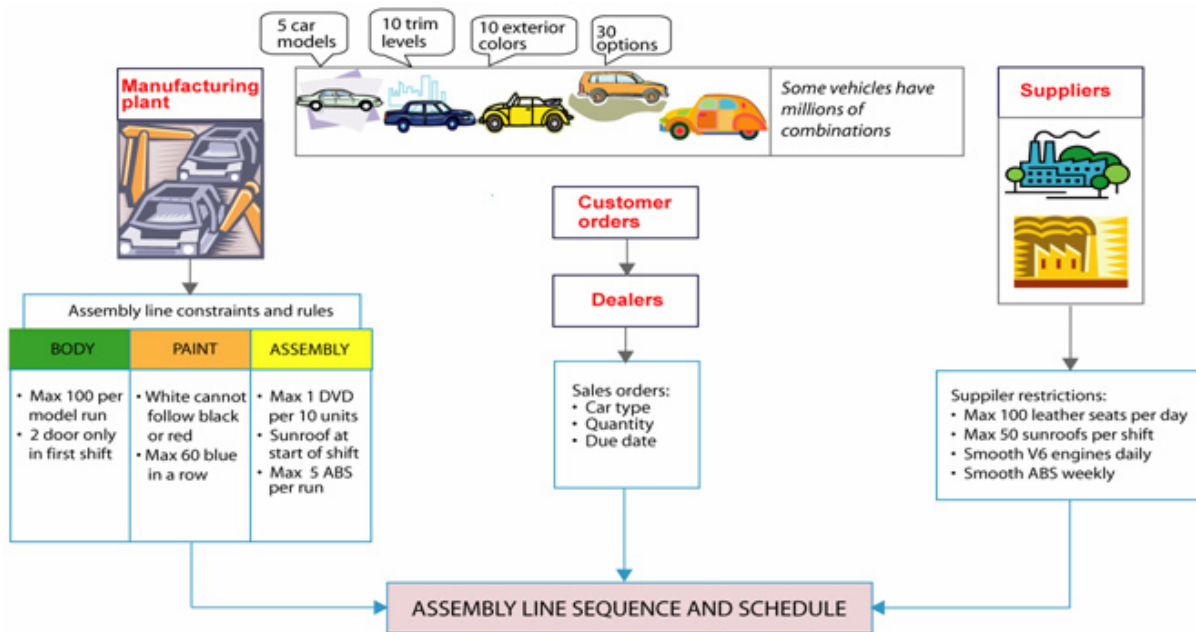
There is intense pressure to remain competitive, flexible and cost-effective in today's markets. Manufacturers constantly strive to increase market share while streamlining production and cutting costs.

The automotive market is a perfect example. Customers now have extensive choice of models, colors, interiors, engines and trim levels. Additional options such as moon roofs, DVD players, in-car navigation, and satellite radios are being offered in an effort to increase market share. These choices have radically increased the complexity manufacturing plants have to handle.

The same pressure is present in most industries. From cars to cell phones, from lawn mowers to dishwashers, customers are being offered more choices. And it's up to the manufacturing plants to deal with the ever increasing complexity that comes as a result.

"Sequencing and scheduling" is the **critical link** between ordering and execution since it represents a balance between demand, capacity and the supply chain. It is key to being competitive: be it meeting promised deliveries, reducing order to delivery time, managing more product variety, reducing finished goods or cutting costs. Feeder lines and suppliers must match their deliveries to the production schedule at the OEM level.

The Critical Link



Product Variety:

hundreds to millions

Production Volumes:

thousands to hundreds of thousands per month

Rules and Constraints:

tens to hundreds

A Complex Problem

Auto assembly line sequencing and scheduling is a very complex problem due to the large number of orders, rules and constraints. This is also true for manufacturers of other products. By quickly generating "near optimal" solutions, the **Optessa MLS system offers a distinct competitive advantage.**

Optessa MLS is the perfect choice for any manufacturing plant looking to gain a competitive edge.

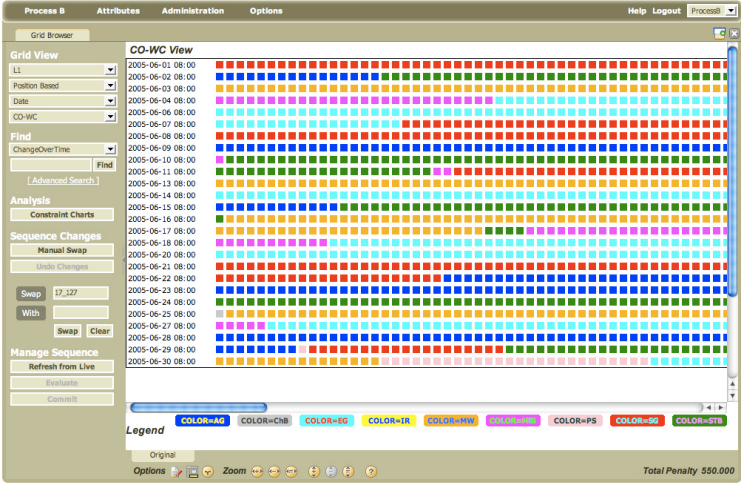
Optessa MLS has been chosen by some of the most complex manufacturing plants in the world to create their production sequences and schedules. Why? Simply because the Optessa MLS system is the best solution on the market.

Effectiveness of the results combined with ease of use and implementation make it the perfect solution. Optessa has repeatedly established this in comprehensive evaluations by some of the world's largest car manufacturers.



Optessa MLS employs modern optimization techniques which can rapidly generate "near optimal" solutions for the most complex problems. The output is a global optimal rather than just a local optimal solution. This is of great value when considering high-level constraints such as distributions and complex patterns. Users can quickly configure the length of any given scheduling run and choose from several different optimization techniques.

- Multiple Schedules can be generated at any given time
- Quick comparison features for performing tests and running 'what-if' scenarios.
- Easily consider several hundred constraints acting upon the production of thousands of units.



Optessa MLS Grid Browser



Optessa MLS employs a comprehensive set of rules and constraints to fully represent the real conditions of your manufacturing environment. Each constraint definition has a complete set of conditions that can be set to define its precise properties.

- Multiple Constraint Types**
- Bat Order
 - Change Count
 - Change Over
 - Disribution
 - Feature Capacity

- Job Time Window
- Runlength
- Ramping
- Sliding Window
- Spacing
- Inventory Simulation

An intuitive prioritization scheme is employed to define rules and constraints.

If a condition is present that is not one of the predefined constraint types, a new type can easily be added.

The Lightest Touch

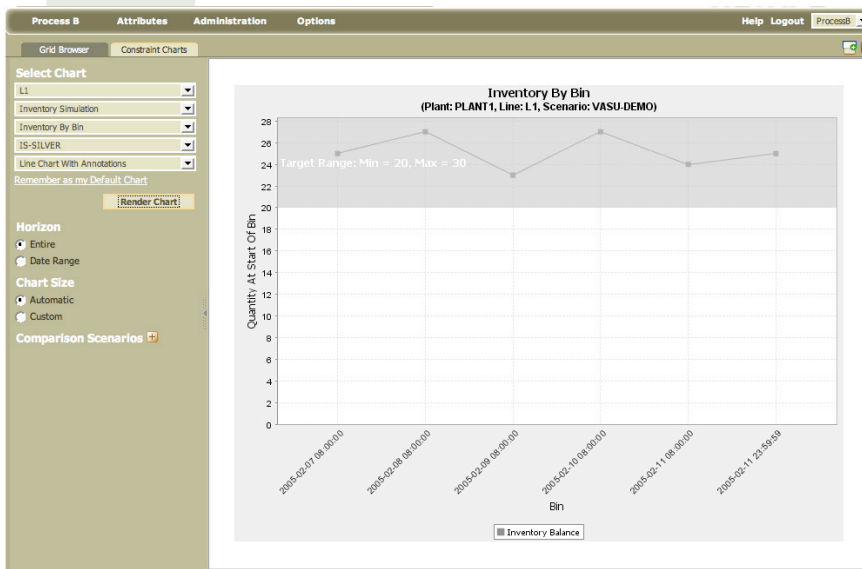
Optessa MLS is truly a 'light-touch' system. It can be seamlessly implemented in any environment in as little as six weeks.

The system is completely platform independent. The user interface runs in any standard web browser - the ultimate thin client.

Optessa has experience in integration with several different legacy systems and leading ERP systems. The ease of communication between such systems and Optessa MLS is second to none.

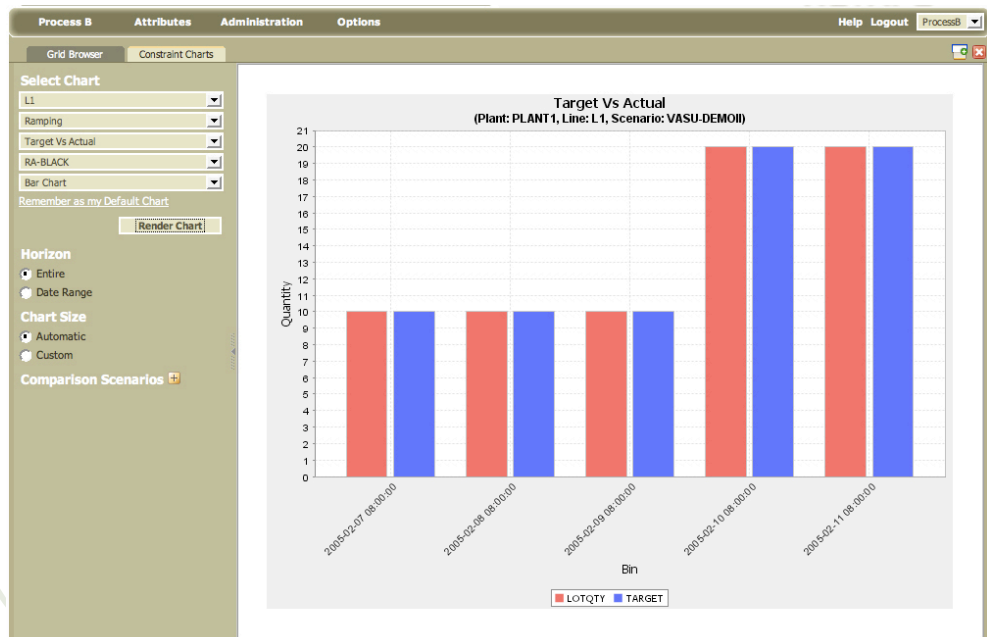
Extensive parallel testing is performed as a standard part of all implementations to insure a smooth transition from previous scheduling methodology.

Optessa MLS has a wealth of charting and graphics tools to help you work effectively and easily with your results.



Comprehensive Analysis Tools

Optessa MLS Constraint Charts
Extensive Visualization





**Optessa MLS Delivers
Disproportionate
Benefits**

ALL rules, constraints and preferences considered

- Immediate benefits: vastly improved schedule from day one

Smooth all options and features (“leveling”)

- Options’ smoothing distributes sub-assembly & parts’ requirements
- Reduce inventory and costs

Work load smoothing

- Smooth total tact time across all bins
- Smooth idleness or overtime

Key role in reducing order to delivery lead time

- Scheduling problem becomes more complex as lead time reduced

Helps reduce finished goods inventories at dealers and in pipeline

- Schedule better aligned with dealer orders: product quantities and due dates
- Reduce need for discounted selling
- Reduce inventory costs

Reduce Work in Progress (WIP) buffers

- Single integrated sequence optimizes against constraints from all plant areas

Improve effectiveness of planning and production control functions


- Up to 90% reduction in scheduling and rescheduling effort: more time available for managing scheduling process and coordination
- React quickly to any changes or unplanned events
- Eliminate manual errors

Rescheduling

- Optimal and rapid rescheduling
- Reschedule maintains integrity of base schedule
- For example, reschedule can be used to
 - Lock weld / paint sequence, and
 - Optimize assembly / trim constraints

Simulation and long term planning exercises

- Avoid capital expenditures for new vehicle / feature introduction



**Key Product
Strengths**

- Near optimal solution: powerful algorithm evaluates > 1M solutions
- Evenly favorable solution across entire planning window: no uneven lumps
- Powerful representation model for all types of assembly lines
- Comprehensive set of rules and constraints handled: new types easily added
- Superior graphics to examine, analyze and manipulate solution
- Web based architecture: application runs entirely on server
- Thin client: browser based with no add-ons
- “Light touch”: can be dropped into place without affecting other systems



Full Educational Services

Optessa offers a wide range of educational services as part of our Optessa MLS implementation process.

All Optessa MLS Certification training courses are extensively hands-on. Course levels range from **Introductory Beginner** to **Advanced Expert**. All Users become fully Optessa MLS certified. Our certification programs are tailored to users involved in Production Control, Information Systems, and Management.

Optessa MLS Users may access our extensive Education Services on a regular schedule and/or on demand.

We are confident that **Optessa MLS** will provide quantifiable benefits by replacing your legacy process or by simply refining and improving results from your legacy scheduled process.

Potential Customer:

Any company with product variety, volumes, and manufacturing to a sequence

Auto OEMS: Cars, Trucks

Small vehicles: Motorcycles, Scooters, ATVs

Power and farm equipment: Engines, Lawn mowers, Pumps, Motors

Tier 1/2/n suppliers: Engines, Transmissions, Seats, Crankshafts, Engine valves

Mass manufactured products: Appliances, Electronics, Semiconductors

Flow Manufacturing: Glass, Window and doors, Process industries



Perfect for Any Environment

Contact us today

Head Office and Sales

Optessa Inc. 905, 5555 Calgary Trail, Edmonton, AB T6H 5P9, Canada

Phone: 780-431-8426

Fax: 780-485-0944

Web:

<http://www.Optessa.com>

USA

Optessa USA Inc., 105 Reids Hill Road, #4, Aberdeen, NJ 07747, USA

Phone: 732-203-9715

Fax: 732-203-9705

Email:

info@Optessa.com

Sequencing & Scheduling for the 21st Century


Optessa
MLS

(formerly NETAPS)