

# ILOG Optimization Decision Manager

Optimization for business people



## Planning and scheduling challenges

Developing a realistic plan or schedule that provides the best possible balance between customer service and revenue goals is sophisticated work. While optimization technology has long been used to find the best solutions to complex planning and scheduling problems, often missing has been an application environment that supports the flexible exploration of all the trade-offs and sensitivities.

## What business people need

A decision-support environment is essential for business people to fully evaluate their options and make confident decisions. But few decision-support applications have given business users what they need:

- Flexibility to develop and compare realistic planning and scheduling scenarios
- Quality sensitivity analysis and explanations
- The power of the world's leading optimization engines

## Empowering business users

ILOG Optimization Decision Manager (ODM) makes optimization easy to use. An important breakthrough in decision-support application development, ILOG ODM-based applications provide all the features business people need to take full advantage of optimization technology. Applications built with ILOG ODM allow users to create, compare and understand planning or scheduling scenarios, adjusting any of the model inputs or goals, and fully understanding the binding constraints, trade-offs, sensitivities and business options. No other product puts optimization in the hands of business people like ILOG ODM.

- **Balance business goals**
- **What-if analysis and scenario comparison**
- **Controlled relaxation of constraints**
- **Powered by ILOG OPL-CPLEX Development System**



Changing the rules of business™

## Slashing development costs

Making a good optimization-based decision-support application takes time and experience. In addition to building the sophisticated behavior associated with scenario creation and comparison, controlled relaxation of constraints, and goal balancing, there are the screens needed to review data inputs, operating constraints, preferences, costs, yield assumptions, goals and solution metrics. Also, usability features like Microsoft Excel integration, cut and paste editing, and online help need to be added to meet minimum ease-of-use standards. ILOG ODM saves considerable time by automatically generating a complete decision-support application with all of these features.

## Controlled relaxation of constraints

In an ILOG ODM-based application, over-constrained problems are automatically relaxed during runtime by ILOG CPLEX, which is careful to relax the fewest and least important constraints. This ensures that a solution is always found and presented along with clear information about any relaxed preferences or constraints. The optimized solution, with its recommended plan or schedule and attendant metrics, can be easily explored, allowing users to understand the optimization model's dynamics and identify even better solution scenarios.

## Multiple objectives and goal programming

In the real world, business objectives such as minimizing various costs and increasing customer service, revenue and profitability often conflict. ILOG ODM-based applications help balance these conflicting goals, allowing users to change the weights associated with each goal or set minimums or maximums for individual goals. In practice, working with goals is as important as working with costs and constraints.

## Scenario management

To support scenario comparison and reporting, ILOG ODM-based applications provide complete storage of each scenario, including the input data, scenario parameters, goals, decision variable values and solution metrics. Data tables provide local storage for external data, so they can be modified without changing data sources. Scenarios can be created, copied, modified and compared out of the box. Furthermore, ODM scenario metrics stored in a database can be invaluable in tracking operational and financial performance over time.

## Refining optimization models

ILOG ODM also helps business users take part in the iterative development needed to perfect an optimization model. Only a cross-functional team can get a sophisticated, decision-support application to fit an organization perfectly. With the ILOG OPL-CPLEX-ODM Development System, the actual mathematical models can be developed in steps with the full participation of all the important stakeholders.

## ABOUT ILOG'S OPTIMIZATION PRODUCTS

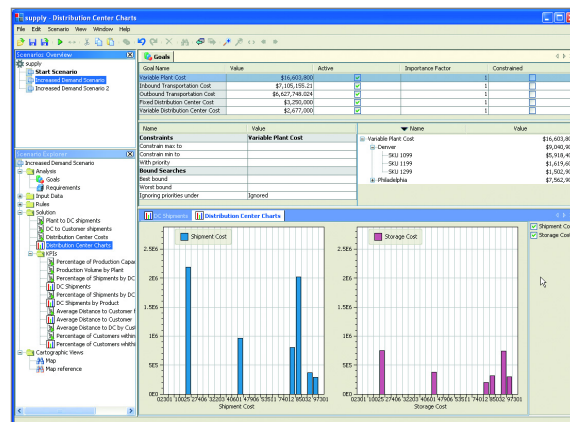
More than 1,000 commercial customers, including 49 members of the Global 100, use ILOG optimization tools, engines and applications to solve the world's most challenging planning and scheduling problems. ILOG optimization products are also used by a majority of the leading supply chain management software applications, as well as in research programs at over 1,000 universities around the world, making the products the "gold standard" for performance and solution quality in the operations research community. For more information and a complete list of customer references, please visit <http://optimization.ilog.com>.

## ABOUT ILOG

ILOG delivers software and services that empower customers to make better decisions faster and manage change and complexity. Over 2,500 global corporations and more than 465 leading software vendors rely on ILOG's market-leading business rule management system (BRMS), optimization and visualization software components, to achieve dramatic returns on investment, create market-defining products and services, and sharpen their competitive edge. The BRMS market share leader, ILOG was founded in 1987 and employs more than 700 people worldwide.

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ILOG ODM-based applications provide easy control of business goals, as well as both tables and charts (shown) for KPI and solution analysis.

“We have successfully used ILOG’s optimization technology to build custom planning and scheduling systems for many years. They have proved their leadership once again with their new Optimization Decision Management System. We believe these tools will help us build even better decision-support applications in the future.”

– Kazuyoshi Inoue  
 Systems Research & Development Center  
 Nippon Steel Solutions

## Learn more

For more information on ILOG Optimization Decision Manager, contact an ILOG Sales Representative near you or visit <http://odm.ilog.com>.



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