### TRM

#### Highlights

- Flexible what-if analysis, scenario management and scenario comparison—
  enables informed trade-offs between
  alternative solutions and conflicting
  business goals
- Data analysis with drill-down and graphical display, enabling detailed visualization of data and decisions
- Embeds sophisticated optimization engines—IBM® ILOG® CPLEX® and IBM ILOG CP Optimizers—for creating smarter, resource-efficient plans and schedules
- Collaboration between planners with scenario sharing through a central repository
- Supports enterprise-wide applications with remote planners and distributed planning processes

# IBM ILOG ODM Enterprise

Makes advanced analytics technology accessible to business, enabling intelligent planning and scheduling decisions

Developing a realistic plan or schedule that provides the best possible balance between customer service and revenue goals is hard work. While optimization technology has long been used to find the best solutions to complex planning and scheduling problems, a collaborative and flexible platform that supports the fast and easy exploration and comparison of all the trade-offs is a breakthrough in planning processes.

#### What business people need

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

- · Flexibility to build and compare plans and schedules
- Decision recommendations powered by the world's leading optimization engines
- · Quality sensitivity analysis and explanations
- Collaborative planning and scenario sharing

#### **Empowering business users**

IBM ILOG ODM Enterprise makes advanced analytics easy to use and deploy. An important breakthrough in custom decision-support application development, IBM ILOG ODM Enterprise-based applications provide all the features business people need to take full advantage of



optimization technology. Applications built with IBM ILOG ODM Enterprise help users to create, compare and understand planning or scheduling scenarios, adjusting the model inputs or goals and fully understanding the binding constraints, trade-offs, sensitivities and business options.

## Multiple objectives and goal programming

In the real world, business objectives (such as minimizing costs, improving customer service and increasing revenue) often conflict with each other. IBM ILOG ODM Enterprise can run world-class optimizers to automatically build plans or schedules optimized relatively to any combination of weighted objectives. Business users can easily create these different scenarios to quickly evaluate the impact of each decision to business objectives and KPIs. In practice, working with goals is as important as working with costs and constraints.

#### Controlled relaxation of constraints

In an IBM ILOG ODM Enterprise-based application, business users can easily control business rules that IBM ILOG optimizers should consider as constraints, along with their relative priority. If a scenario would become over-constrained, IBM ILOG optimizers would carefully relax the fewest and least important constraints. A solution is hence always found and presented, along with information about relaxed preferences or constraints. The optimized solution, with its recommended plan or schedule and attendant metrics, can be easily explored, helping users understand the optimization model's dynamics and identify solution scenarios.

#### Scenario management

To support scenario comparison and reporting, IBM ILOG ODM Enterprise-based applications provide complete storage of each scenario, including the input data, scenario parameters, goals, solutions 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 right away. Furthermore, scenario metrics stored in a database can be invaluable in tracking operational and financial performance over time

#### Collaborative planning

IBM ILOG ODM Enterprise supports large-scale applications with remote planners and distributed planning processes. Planners can share candidate plans with reviewers through the shared scenario repository, get feedback on a schedule through Excel or email, or facilitate joint date entry and validation. The Scenario Repository of IBM ILOG ODM Enterprise ensures data safety during scenario editing through locking.



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

#### Scalable enterprise deployment

IBM ILOG ODM Enterprise provides client-server based deployment where planners can interactively perform what-if analysis through a rich client, and trigger potentially large and complex optimization solving on a remote server. This server supports concurrent and multiuser invocations, as well as programmatically scheduled (batch) jobs. In both scenarios, it manages and monitors the optimization engine(s) that produce decision recommendations to planners. Increase of computational needs, better load balancing or high availability IT requirements can be covered with cluster deployments.

## Simplified application development and deployment

IBM ILOG ODM Enterprise provides an out-of-the-box customizable implementation with many standard application functionalities, significantly reducing the effort, time and risk associated with developing planning and scheduling solutions, Sophisticated behavior associated with scenario creation and comparison, controlled relaxation of constraints, and goal balancing are available as well as user interface screens needed to review data inputs, operating constraints, preferences, costs, yield assumptions, goals and solution metrics. In minutes, simple but effective views and interactions can be configured to fulfill most basic needs. And ODM Enterprise also simplifies constructing more complex views needed for sophisticated users.

#### Refining optimization models

IBM ILOG ODM Enterprise also helps business users take part in the iterative development needed to perfect an optimization model. Only a cross-functional team including business users, business analysts, advanced analytics experts and IT teams can get a sophisticated, decision-support application to perfectly fit an organization and its processes. IBM ILOG ODM Enterprise naturally supports iterative development of planning and scheduling applications in its different phases: business analysts can capture the business application data model using graphical data modeling edition tools, optimization experts can develop and tune the optimization model, software developers can develop connectors and configure global architecture.

#### For more information

To learn more about IBM ILOG ODM Enterprise, please contact your IBM marketing representative or IBM Business Partner, or visit the following website: <a href="https://ibm.com/software/integration/optimization/odm-enterprise/">https://ibm.com/software/integration/optimization/odm-enterprise/</a>

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