

IBM Decision Optimization Center

Delivers optimization across many business functions through a common IT architecture



Highlights:

- Build innovative decision optimization solutions through common architecture
 - Coordinate decision planning & execution across your enterprise to solve complex business challenges
 - Visualize business decisions through data and scenarios to put planning and execution on a factual basis
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Planning and scheduling challenges

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, an application platform or “center” that supports the flexible exploration of all the trade-offs and sensitivities is often missing.

What business people need

A decision-support environment is essential for business people to review scenario 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
- Collaborative planning and scenario sharing
- Decision recommendations powered by the world’s leading optimization engines

Empowering business users

IBM Decision Optimization Center makes optimization easy to use and deploy. An important breakthrough in configurable decision-support application development, IBM Decision Optimization Center applications provide all the features business people need to take full advantage of optimization technology. Applications built with IBM Decision Optimization Center help users to create, compare and understand planning or scheduling scenarios, adjust any of the model inputs or goals and fully understand the business 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, increasing revenue, and profitability often conflict. IBM Decision Optimization Center applications help balance these conflicting goals, allowing users to change the weights associated with each goal or set individual goals.

Controlled relaxation of constraints

In an IBM Decision Optimization Center application, over-constrained problems are automatically relaxed during runtime by IBM 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 information about relaxed preferences or constraints. The optimized solution, with its recommended plan or schedule and attendant metrics, can be easily explored, helping users to understand the optimization model's dynamics and identify solution scenarios.

Scenario management

To support scenario comparison and reporting, IBM Decision Optimization Center 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 right away. Furthermore, scenario metrics stored in a database can be invaluable in tracking operational and financial performance over time. IBM Decision Optimization Center applications provide easy control of business goals, as well as both tables and charts (shown) for KPI and solution analysis..

Collaborative Planning

IBM Decision Optimization Center supports large-scale applications with remote planners and distributed planning processes. Planners can share proposed plans with reviewers through the shared scenario repository, get feed-back on a schedule through Excel or email or facilitate joint data entry and validation. The Scenario Repository of IBM Decision Optimization Center ensures data safety during scenario editing through locking.

Slashing development costs

Making a good optimization-based decision-support application takes time and experience. It takes building the sophisticated behavior associated with scenario creation and comparison, controlled relaxation of constraints and goal balancing. There are the dashboard 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. IBM Decision Optimization Center saves time by automatically generating a complete decision-support application with all of these features.

Refining optimization models

IBM Decision Optimization Center 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 IBM Decision Optimization Center Developer, the actual mathematical models can be developed in lock-step with data access, GUI configuration, server set-up and application integration. IBM Decision Optimization Center Developer makes it happen with the full participation of every important stake-holder, from IT and Business to Engineering and Operations Research.

Scalable enterprise deployment

IBM Decision Optimization Center provides client-server based deployment where planners can interactively perform 'what-if' analysis through a rich client (IBM Decision Optimization Center Studio), and trigger potentially large and complex optimization solves on a remote server. This server, IBM Decision Optimization Center Server, supports concurrent and multi-user invocations from Decision Optimization Center Studio, as well as programmatically scheduled batch jobs. In both scenarios, it manages and monitors the optimization engine(s) that produce decision recommendations to planners.

For more information

To learn more about IBM Decision Optimization Center please contact your IBM marketing representative or IBM Business Partner or visit the following Web site:

ibm.com/software/products/en/category/decision-optimization



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