

ILOG Scheduler

Constraint-based scheduling



Specialized scheduling technology

ILOG Scheduler is a C++ library for solving scheduling problems, and supplements ILOG Solver by providing specialized modeling and algorithmic enhancements for problems involving scheduling resources and activities over time. ILOG Scheduler's modeling objects let you quickly and intuitively model resources and activities, as well as temporal and capacity constraints. Its state-of-the-art algorithms rapidly and accurately compute schedules that satisfy your constraints and business objectives. Scheduling is at the center of many strategic corporate problems, and is often where companies find the most money to save. ILOG Scheduler users report typical cost savings of 20 percent and a reduction of 75 percent in the time spent planning operations.

Reduced development time and effort

Application development time and effort are dramatically reduced with the power and simplicity of the ILOG Scheduler application programming interface and a standard graphical representation using ILOG JViews Gantt charts. Solutions can be integrated with other applications through a standard XML output.

Broad range of uses

Industries benefiting from ILOG Scheduler include manufacturing, in supply-chain planning, production and workforce scheduling, supply and demand matching, and available to promise; transportation, in crew, equipment and maintenance scheduling; telecommunications, in technician scheduling, and workflow and satellite mission planning; and others needing project, field service, workforce and appointment scheduling.

- **Finite capacity scheduling**
- **Powerful modeling**
- **Intelligent control**
- **Fast algorithms and efficient heuristics**
- **Out-of-the-box Gantt chart**
- **Flexible, open and extensible**



Finite capacity scheduling

An add-on module for ILOG Solver, ILOG Scheduler takes full advantage of the power and flexibility of the top constraint-based optimization engine. By combining constraint programming with advanced scheduling algorithms and heuristics, ILOG Scheduler provides an efficient, reliable way to compute solutions that satisfy your most complex finite-capacity scheduling problems.

Three-tiered approach

ILOG Scheduler also shares ILOG Solver's three-tiered architecture: powerful modeling, intelligent control and fast algorithms. The modeling layer provides an intuitive way to model problems; the control layer allows the user to define a search strategy; and the powerful algorithmic layer uses cutting-edge technology that delivers fast, reliable solutions.

• Powerful modeling

- Tasks are represented with activities (interval, breakable, etc.).
- Equipment, raw materials and other resources are represented with resources (unary, discrete, energy, state, reservoirs, etc.).
- Transition times and costs on resources can be directly represented.

• Intelligent control

- Wide range of predefined scheduling strategies (resource assignment, time setting, ranking, sequencing, etc.)
- Customizable scheduling strategies
- Specific features for on-line scheduling, reactive scheduling and problem decomposition

• Fast algorithms

- Most efficient algorithms available for information propagation between constraints (provided by ILOG Solver)
- High performance makes real-time scheduling possible
- Advanced algorithms for each predefined constraint (edge-finder, timetabling, sequencing, etc.)

Out-of-the-box Gantt chart

Gantt charts provide a standard graphical representation for results generated by ILOG Scheduler. They enable developers to rapidly evaluate, test, debug and analyze solutions, as well as prototype enterprise-class scheduling applications. (May require ILOG JViews deployment licenses.)

Flexible, open and extensible

A flexible, open and extensible C++ library, ILOG Scheduler is the best choice for developing solutions for your particular finite capacity scheduling problems. With a standard XML output, it can be rapidly integrated with other enterprise applications that might share scheduling information. Fully integrated into the ILOG Optimization Suite, it delivers full access to the world's most comprehensive and powerful group of optimization engines, letting you turn your difficult optimization problems into opportunities.

■ ABOUT ILOG

ILOG's innovative enterprise-class software components and services have helped companies maximize their business agility and improve operating efficiency for over 10 years. Over 1,000 global corporations and more than 300 leading software vendors rely on ILOG's business rules, optimization and visualization technologies to achieve dramatic returns on investment, create market-defining products and services, and sharpen their competitive edge. For more details, please visit www.ilog.com

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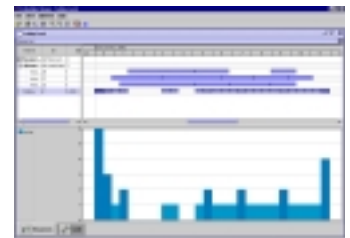
“Embedding best-in-class ILOG optimization components ensures that our customers are able to quickly generate the optimal plans they need to compete globally at Internet speed.”

- Don Klaiss

Senior Vice President of
Manufacturing and Distribution
Oracle



Gantt chart showing project view



Gantt chart showing resource view

For more information on ILOG Scheduler, contact an ILOG Sales Representative near you or visit the ILOG Scheduler website, at www.ilog.com/products/scheduler.



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