Changing the rules of business™

Dear ILOG ODMS Customer:

Announcing the Spring 2007 Release of ILOG ODMS with the introduction of ILOG CP Optimizer 1.0

We appreciate your continued support of ILOG's optimization products and hope you will find the improvements and features of this release helpful.

ILOG CP Optimizer is a new Constraint Programming engine product. It is the first automatic constraint programming optimizer, designed to give access to CP technology in a style similar to ILOG CPLEX. Featuring a model and run development process requiring no coding of search, ILOG CP Optimizer lets you easily solve problems that are not well suited for mathematical programming. ILOG CP Optimizer is embedded in the ILOG OPL-CPLEX Development System, as well as integrated with ILOG ODM for generation of interactive decision support applications.

ILOG CP also remains available for complex scheduling and routing problems that are beyond the capabilities of ILOG CP Optimizer, or for advanced uses of constraint programming that require all the extensibility and fine-grained control of search programming available in ILOG CP.

The highlights of the new CP Optimizer 1.0 and the other ODMS product releases, OPL 5.2, ODM 2.2, CPLEX 10.2, and CP 1.2, are listed below. More details can be found in the Release Notes of each product.

ILOG CP Optimizer 1.0

- *Modeling expressivity*
  - ILOG CP Optimizer provides a comprehensive set of modeling constructs: arithmetic constraints and expressions (sum, product, max, min, abs, modulo, division, different, equality…), logical constraints (and, or, imply…), array-based indexing with decision variables, and specialized constraints for a concise and efficient statement of frequently used patterns (all different, lexical ordering, inverse…). This expressivity allows compact and efficient model representations to be built for your most complex problems, and lets you add new side constraints without having to change the underlying data structures of your model.
- *Tunable optimizer engine*
  - ILOG CP Optimizer automatically adjusts its search strategy to the provided model and data. It also enables you to tune the strategy by declaring search phases and providing parameters that put special emphasis on certain search algorithms or constraint propagation techniques.
- *Interfaces in C++, Java, C# as well as integration in OPL-CPLEX Development System*
  - ILOG CP Optimizer provides Application Programming Interfaces (API) for C++ developers, Java developers or C# developers. It is also integrated in OPL-CPLEX Development System – the fastest way to build efficient optimization models, supporting the complete model and decision support application development process.

ILOG OPL Development Studio 5.2

- *Support for ILOG CP Optimizer*
  - CP Optimizer (described above) can now be developed, debugged and tuned in OPL, in addition to or in combination with CPLEX models. This allows you to model and solve pure CP problems, or to decompose problems and combining CP and Math Programming (MP) models in sequence to solve them.

    - The OPL modeling language has been extended to support CP Optimizer models, including arithmetic linear and non-linear constraints, logical constraints, and specialized constraints that define relationships between a large set of variables.
    - The OPL time and memory profiler, the console, log and solve progress displays are all integrated with CP Optimizer
    - New supported platforms include: Windows Vista, Red Hat Enterprise Linux 5.0, SUSE Enterprise Linux Server 10 (SLES 10), Solaris 10, and AIX 5.3.
- *New platform Support*
    - New supported platforms include: Windows Vista, Red Hat Enterprise Linux 5.0, SUSE Enterprise Linux Server 10 (SLES 10), Solaris 10, and AIX 5.3.

ILOG Optimization Decision Manager 2.2

- *Support for ILOG CP Optimizer*
    - ILOG CP Optimizer (described above) can now be used in an ODM application – in isolation or in conjunction with CPLEX models.
- *Multi-model applications*
    - OPL Solving approaches, which combine multiple MP or CP models and engines in sequence or in iteration, can now be used in ODM. Each sub-model's results- the solutions, relaxed requirements and goals - can be aggregated and summarized in ODM views.
- *Custom scenario data checking*
    - Custom scenario checkers, written in Java, can now be added to ODM applications, and they can be invoked automatically before a scenario is solved. The errors and warning are displayed in the Error Panel of ODM, allowing business users to correct invalid scenario input, such as erroneous input or out-of-bounds data.
- *Deployment of ODM applications with compiled models*
    - A deployed ODM application now contains a compiled (obfuscated) version of the optimization model, providing protection of the details and potential intellectual property contained therein.
- *New platform Support*
    - The ODM Player is now available for Windows x64, allowing deployment of models and applications that require more memory to execute than the 4GB available on 32 bit machines.

ILOG CP 1.2

- *Improved propagation algorithms*
    - The following propagation algorithms have been improved in ILOG Scheduler 6.4:

        Calendar efficiency detects failures more quickly than in previous releases.
        The sequence constraint propagates more quickly.
- *New platform Support*
    - New supported platforms include: Windows Vista, Red Hat Enterprise Linux 5.0, Solaris 10, and AIX 5.3.

ILOG CPLEX 10.2

- *New platform Support*
    - New supported platforms include: Windows Vista, Red Hat Enterprise Linux 5.0, SUSE Enterprise Linux Server 10 (SLES 10), SLES 10 on Itanium, Solaris 10, and AIX 5.3.

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ILOG OPL, CPLEX, CP, CP Optimizer, and ODM are the five products in our complete system for building optimization model-based applications, called the ILOG Optimization Decision Management System, or ODMS:

- *ILOG CPLEX – A Mathematical Programming Engine* that solves the full range of LP, QP, QCP and MIP problems encountered in the real world.
- *ILOG OPL Development Studio – A complete IDE* and modeling language for rapid development and deployment of optimization models. Supports application generation with ILOG Optimization Decision Manager.
- *ILOG Optimization Decision Manager (ILOG ODM) – An Optimization Application Development Tool for developing interactive decision support applications* with out of the box "what-if" analysis, scenario comparison and goal programming.
- *ILOG CP Optimizer – The First Automatic Constraint Programming Optimizer featuring* a model and run development process for problems difficult to solve using traditional MP methods. CP Optimizer is fully integrated with OPL and ODM to allow use of Constraint Programming technology in optimization applications.
- *ILOG CP – A complete and feature rich Constraint Programming Engine* that solves complex scheduling and routing problems.

Finally, please remember our standard policy around support of old versions of our products: releases are supported for 2 years from the availability date of the replacement release. The specific dates are as follows:

Product	Release	End of Maintenance
ILOG CP 1.0	09-Jan-2006	25-Jul-2008
ILOG CP 1.1	25-Jul-2006	21-May-2009
ILOG CP 1.2	21-May-2007	Current Version
ILOG CPLEX 9.1	19-Apr-2005	09-Jan-2008
ILOG CPLEX 10.0	09-Jan-2006	25-Jul-2008
ILOG CPLEX 10.1	25-Jul-2006	21-May-2009
ILOG CPLEX 10.2	21-May-2007	Current Version
ILOG ODM 1.0	25-Apr-2005	25-Jul-2008
ILOG ODM 2.0	25-Jul-2006	08-Dec-2008
ILOG ODM 2.1	08-Dec-2006	21-May-2009
ILOG ODM 2.2	21-May-2007	Current Version
ILOG OPL Development Studio 4.0	19-Apr-2005	05-Sep-2007
ILOG OPL Development Studio 4.1	05-Sep-2005	09-Jan-2008
ILOG OPL Development Studio 4.2	09-Jan-2006	25-Jul-2008
ILOG OPL Development Studio 5.0	25-Jul-2006	08-Dec-2008
ILOG OPL Development Studio 5.1	08-Dec-2006	21-May-2009
ILOG OPL Development Studio 5.2	21-May-2007	Current Version
ILOG OPL Studio 3.7	17-Nov-2003	19-Apr-2007
ILOG Dispatcher 4.1	19-Apr-2005	09-Jan-2008
(Subsequent Dispatcher releases are part of ILOG CP)		
ILOG Scheduler 6.1	19-Apr-2005	09-Jan-2008
(Subsequent Scheduler releases are part of ILOG CP)		
ILOG Solver 6.1	19-Apr-2005	09-Jan-2008
(Subsequent Solver releases are part of ILOG CP)		

The standard maintenance support for OPL 3.7 ended in April 2007. The following is the migration plan for OPL 3.7:

- CPLEX and OPL 3.7 - If you are an OPL 3.7 user using CPLEX, it is recommended that you move to latest version of OPL.

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- CP and OPL 3.7 - If you are an OPL 3.7 user using CP, we encourage you to consider migration to OPL 5.2 and new CP Optimizer. If this is not possible –this first CP Optimizer release does not support scheduling with tasks and resources - then you may also request additional maintenance support for OPL 3.7 by contacting opl37-maintenance@ilog.fr.

Thank you for using the ILOG ODMS Suite of products to help you develop your optimization applications. We value your business and are committed to creating the best possible products and services to meet your needs.

Sincerely,

The ILOG Optimization Team