

# What's new in Xpress Optimization Suite 7.1

3 November, 2010

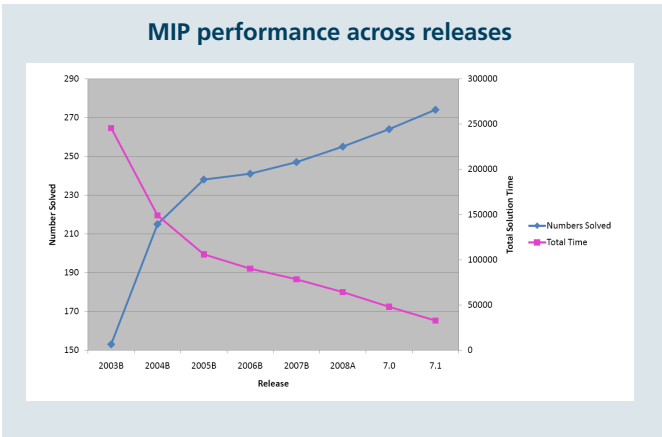
**The Xpress Optimization Suite helps organizations solve bigger problems, design applications faster, and make even better decisions in virtually any business scenario.**

New in Xpress 7.1 is the unique ability to support ultra-large-scale optimization by adding distributed modeling capabilities and true 64bit support to solve problems where the huge number of coefficients exceed the limits of most products, Xpress 7.1 also significantly improves performance on both academic benchmarks and real world client problems; keeping it well placed among the fastest solver offerings.

FICO™ Xpress Optimization Suite is the premier mathematical modeling and optimization software suite in the world, with the best tools available to aid the development and deployment of optimization applications that solve complex, real-world challenges. The improvements in Xpress 7.1 in detail:

## Unique features for solving ultra-large scale optimization problems

Solving large, complex optimization problems can be a daunting task. Conquering them effectively, however, can be the difference between success and failure in today's highly competitive marketplace. FICO Xpress Optimizer 7.1 has introduced new features that make large scale optimization problems more management and help turn the unsolvable into solvable.



- Solve much bigger problems with true 64bit support**  
 The possibilities are limitless with the enhanced optimization and modeling support for solving ultra-large-scale models where the number of coefficients can exceed 2 billion.
- Solve large problems faster with distributed modeling and solving**  
 Cut solution times dramatically by leveraging distributed execution of Mosel models that can now be controlled from a master model across a heterogeneous set of machines.

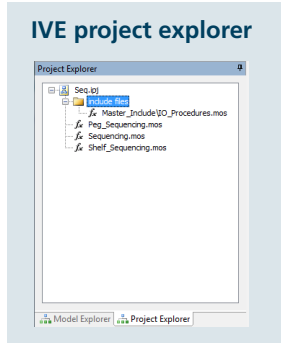
For more information, please read our whitepapers on large scale optimization and parallel and distributed modeling available for download at <http://optimization.fico.com>.

### Additional improvement to the optimization engines:

- Dramatically enhanced parallel, mixed integer and mixed integer quadratic solvers
- More stable and robust nonlinear algorithms including SLP
- Improved branching strategies
- New cuts like Clique Implied Bound Cuts and Conflict Cuts
- Support for finding Mixed Integer Irreducible Subsets (MIIS)
- A Matlab interface is available

## Design faster

Xpress 7.1 enables organizations to build applications faster than before and design them to match the way the business works. IVE visual development environment for Mosel has been improved so it's easier for developers to get new optimization initiatives to market in less time.

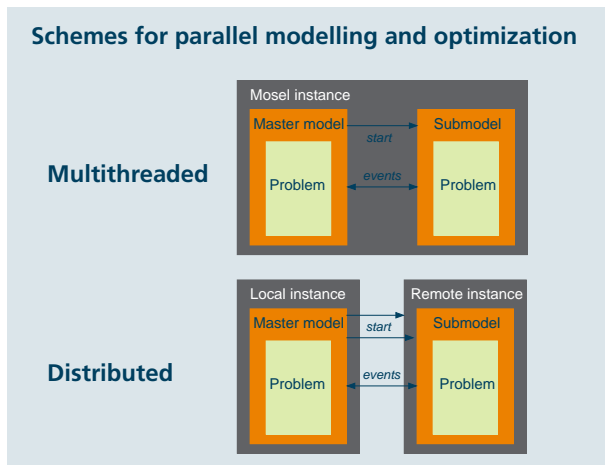


The newest release of Xpress features:

- Improved modeling language and development environment that simplifies the design of complex optimization models.
- Improved **drag-and-drop editor** that increases productivity through rapid prototyping and faster deployment.
- **Project functionality** has been added to IVE. A project is a collection of related files (Mosel, XAD resources, data,...) together with IVE configuration.

## Make better decisions

Xpress 7.1 includes a new version of Xpress-Mosel software, a robust modeling and programming language that lets users model and examine multiple solutions to find the ideal choice for any given business scenario. As a result, it's easier to choose the solution that best aligns to business goals.



The newest release of Xpress features:

- Added functionality for **distributed modeling and solving**. It is now possible to start other Mosel instances (either on the same machine in a separate process or on a remote host) and execute commands remotely on them (e.g. compile, load, and execute models).
- Simplified and more robust **data exchange capabilities** between Mosel and applications.
- XML interface.

### Where to get more information

Xpress website:  
 Xpress resources (documentation, whitepapers):  
 Searchable on-line examples database:  
 Trial download:

<http://www.fico.com/xpress>  
<http://optimization.fico.com>  
<http://examples.xpress.fico.com>  
<http://decisions.fico.com/downloadTrial.html>