

## LEDAS unprecedented sales campaign kicks off with Two-Dimensional Geometric Solver LGS 2D

Novosibirsk, Russia  
13 September 2005

LEDAS announces its new sales and marketing policy of open prices for LGS 2D, its two-dimensional, constraint-based geometric computational engine for variational parametric design. The campaign is to demonstrate that LGS 2D is a widely affordable solution, to drastically smooth negotiations with potential LGS 2D buyers, and to assert LEDAS new strategy "*LGS for each market niche*" by releasing a series of custom versions. LEDAS Geometric Solver LGS 2D is a family of software components including inexpensive and reliable products for small and medium sized software development companies with model needs, and exclusive solutions with extensive requirements of functionality, support, and consulting for companies with specific demands.

In particular, by this announcement LEDAS is launching distribution of the following LGS 2D highlighted versions that have been configured based on multiple client requests:

### LGS 2D Light

The version provides basic variational capabilities to deal with points, lines, and circles. The list of the supported constraints is limited by logical and parametric geometric constraints. They include coincidence, tangency, concentricity, parallelism, symmetry, equidistance, midpoint, distance, angle, radius, etc. Functions available to the user enable solving geometric models with constraints, i.e. finding a configuration satisfying all imposed constraints. LGS 2D Light is intended to be integrated into software applications requiring only basic parametric functionality, i.e. variational design of a limited number of predefined entities (windows, doors, tables, etc.)

### LGS 2D Extended

The version provides the same set of objects and constraints as LGS 2D Light but additionally supports ellipses and arbitrary curves (with rigid shape or deformable curves, i.e. splines), as well as their geometric constraints (coincidence, tangency, distance, etc.) Another extension is the possibility to group objects into rigid sets, i.e. fixing their relative position. LGS 2D Extended can be used to build drafting and sketching applications.

### LGS 2D Advanced

The version includes all the functionality of LGS 2D Extended, but it also operates with engineering variables and constraints. Variables can be pure engineering (mass, temperature, etc.) or defined by dimensions (distance, angle) between geometric objects. Engineering constraints include algebraic equations and inequalities. The list of geometric and engineering constraints can be expanded due to a powerful mechanism of black-box constraints, specified on the application side. The functionality of LGS 2D Advanced consists not only of solving geometric models: an important feature is the possibility to move/rotate objects dynamically keeping all constraints satisfied. Another extension is complete diagnostics of the variational model:

finding over defined constraints and objects with degrees of freedom. Future versions of LGS 2D Advanced will support auto-constraint functionality, allowing automatic creation of a well-defined parametric sketch from an initial draft. LGS 2D Advanced is intended to be used in powerful CAD/CAM applications, where it can be a base for interactive sketching and drafting, feature-based design, and parametric optimization.

Base prices for LGS 2D Light, LGS 2D Extended, and LGS 2D Advanced are USD 1,190, USD 4,950 and USD 19,950 respectively. Customized versions of LGS 2D can be assembled by individual customer request\*.

Questions concerning LGS 2D and related services can be sent to LEDAS Sales and Marketing Department at: [sales@ledas.com](mailto:sales@ledas.com).

### About LGS 2D

LEDAS Geometric Solver LGS 2D v.1.3 is a software component intended to support variational parametric design in CAD/CAM, computer graphics, and virtual reality systems. LGS 2D is a C++ class library that runs on Windows 2000 and XP, Linux, FreeBSD, and AIX platforms. It can be integrated (via its API written in C) into any kind of software application. A sample test application for LGS 2D called Lege'n'd is available for free download at the LEDAS web-site. It was created with the Open CASCADE open-source framework. The application reflects all new functionality and features of LGS 2D version 1.3.

### About LEDAS

LEDAS Ltd. is an independent software company founded in 1999 and located in Novosibirsk, Russia. LEDAS developed a state-of-the-art proprietary technology based on constraint programming, and applies it to PLM (Product Lifecycle Management) tasks, including CAD/CAM domain, for resource and project scheduling. Information on LEDAS is available on the Internet at: <http://www.ledas.com>

Windows is a registered trademark of Microsoft Corporation in the United States and other countries. Linux is a registered trademark of Linus Torvalds. FreeBSD is a registered trademark of Wind River Systems, Inc. AIX is a registered trademark of International Business Machines Corporation. Open CASCADE is a registered trademark of Open CASCADE S.A.

### Contact

Alexey Rasskazov  
LEDAS Ltd.  
Tel: +7 383 3356 504  
Fax: +7 383 3356 256  
E-mail: [aleks@ledas.com](mailto:aleks@ledas.com)

\*Prices listed assume customers follow LEDAS standard sales procedures. Prices may vary depending on the LGS 2D package set. LEDAS reserves the right to revise its pricing policy in accordance with current market trends.