NASA's Jet Propulsion Laboratory begins widespread adoption of Maplesoft technology

MapleSim and Maple to enhance modeling and simulation in space exploration projects

Bengaluru, Karnataka, January 26, 2012 /India PRwire/ -- Lanika announces today a major adoption of Maplesoft's products by NASA's Jet Propulsion Laboratory (JPL). JPL is implementing Maple, MapleSim, and MapleNet in its various projects. Whether creating America's first satellite, Explorer 1, sending the first robotic craft to the moon, or exploring the edges of the solar system, JPL has been at the forefront of pushing the limits of exploration.

Curiosity, JPL's latest space rover, launched at the end of November, aims to explore Mars to investigate whether the planet could have ever supported microbial life. Current JPL projects include spacecraft missions to comets, asteroids and the edge of the solar system, as well as satellites that monitor the land, oceans, and atmosphere of our own planet.

Maplesoft products are expected to help JPL save time and reduce cost by providing more efficient and smarter methods for mathematical analysis, modeling, and simulation. Maplesoft solutions are built within a natively symbolic framework, avoiding some of the worst sources of error and computational inefficiencies generated by traditional, numeric-based tools - thus providing great tools for precision-rich projects such as those of JPL.

In addition to using Maple for advanced mathematical analysis, JPL will use MapleSim, Maplesoft's high-performance physical modeling and simulation platform, as a key tool in its engineering workflow. MapleSim works in combination with Maple. It accesses Maple's symbolic computation technology to efficiently handle all of the complex mathematics involved in the development of engineering models, including multi-domain systems, multibody systems, plant modeling, and control design.

"Maplesoft products will allow JPL to unify their approach to mathematics, modeling, and simulation," says Paul Goossens, Vice President, Applications Engineering, Maplesoft. "MapleSim's intimate connection to the underlying physics of the system models, combined with the knowledge capture and analysis capabilities inherent in Maple, will make project design and development faster and more accountable. JPL scientists will arrive at optimal solutions much faster, and their models will be much more reusable."

Maplesoft technology is also being used in other space robotics research. Dr. Amir Khajepour, Canada Research Chair in Mechatronic Vehicle Systems and Professor of Engineering in the Mechanical and Mechatronics Engineering department at the University of Waterloo, is working with the Canadian Space Agency (CSA), to develop a full solution for the power management system of autonomous rovers. His team is using MapleSim to rapidly develop high fidelity, multi-domain models of the rover subsystems.

Notes to Editor

About Lanika Solutions

Lanika is provider of technical computing software & high-end hardware tools for engineers and scientists in industry, government and education. The Company partners with reputed principals developing industry leading solutions that help a wide base of clients throughout the Indian sub-continent solve the toughest engineering problems.

Lanika Solutions partners with reputed principals developing industry leading solutions. Currently, Lanika Solutions is partnered with Maplesoft, Reactive Systems, Lyrtech, Visualization Sciences Group (VSG), Breault Research Organization (BRO), ExpertControl, Sigma Technology and DCG/ Powersys Solutions.

Lanika Solutions product offerings and support reflects the philosophy that given great tools, clients can simplify development, increase productivity, and dramatically reduce time to market. Company's suites of technical products help clients to quickly solve practical problems within the framework of the premier products and services provided.

The Company's offerings have been selected as the leading products available to scientists and engineers in their respective application areas. The Company will continue to expand its offerings through organic growth in related technology/market segments as other premium solutions become available.

Visit http://www.lanikasolutions.com to learn more.

About Maplesoft

Maplesoft™, a subsidiary of Cybernet Systems Co., Ltd. in Japan, is the leading provider of high-performance software tools for engineering, science, and mathematics. Its product suite reflects the philosophy that given great tools, people can do great things.

Maplesoft's core technologies include the world's most advanced symbolic computation engine and revolutionary physical modeling techniques. Combined together, these technologies enable the creation of cutting-edge tools for design, modeling, and high-performance simulation.

Maplesoft's products help to reduce errors, shorten design times, lower costs, and improve results. The Maplesoft product suite includes Maple™, the technical computing and documentation environment, and MapleSim™, the high-performance, multi-domain modeling and simulation tool for physical systems.

Engineers, scientists, and mathematicians use Maplesoft products to enable them to work better, faster, and smarter. Maplesoft's customers include Ford, BMW, Bosch, Boeing, NASA, Canadian Space Agency, Canon, Motorola, Microsoft Research, Bloomberg, and DreamWorks, covering sectors such as automotive, aerospace, electronics, defense, energy, financial services, consumer products, and entertainment. With Toyota, Maplesoft founded the Plant Modeling Consortium to promote the development of new design techniques for automotive and related industries.

Visit http://www.maplesoft.com to learn more.

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