# The maple Reporter

Newsletter for November 2006

## Welcome to the November 2006 Issue of the Maple Reporter!

The Maple Reporter provides all the latest news from Maplesoft, with articles highlighting new products, innovative application areas, tips and techniques, events, and much more.

This month's issue features news on the launch of the MATLAB and Simulink Connectivity Toolkit, the essential set of Maple-powered analytical tools that accelerate your analysis and model development for MATLAB and Simulink. Maplesoft has also launched a new MapleConnect product, Geometry Expressions, and two new language packs for Maple 10. Also, check out this month's Tip & Techniques, and the latest MapleCast episode.

**To ensure delivery of Maplesoft emails to your inbox please add customerservice@maplesoft.com to your address book.**

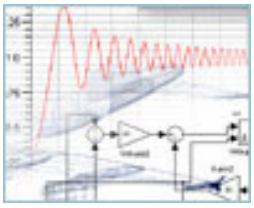
### Order the latest addition to the Maplesoft poster series!


The Math Matters Poster is a mosaic of the top twenty engineering advances of the 20th century that fundamentally changed society; and it shows how mathematics helps us utilize and benefit from these great technological achievements.

## News & Announcements

**Free Demo Disk**

## MATLAB & Simulink Connectivity Toolkit



This new toolkit from Maplesoft uses the advanced mathematical power of Maple to enable engineers to derive solutions for use in MATLAB and Simulink in a fraction of the time it would take to do manually. This toolkit includes, Maple 10, BlockBuilder for Simulink, and the Maple-MATLAB connector.

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## Has a Maplesoft product helped you? Tell us about it! You could win an iPod!

Maplesoft is always looking for great ideas and techniques from our user base. If Maple or any of our other products, has helped you work more efficiently, creatively, or just simply better with your mathematics, we want to hear from you. Just fill-in a few questions on our Website and you have a chance of winning an iPod.


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## Maple Toolbox for MATLAB

### New Maple Toolbox for MATLAB Product Demonstration

This new product demonstration illustrates the connection of Maple and MATLAB, with examples of how you can derive solutions in one, and manipulate them in the other. Maple's capabilities are also highlighted with the solution of a higher-order differential equation and a demonstration of its features that aid in the design and solution development process.

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### New MapleConnect Product Geometry Expressions for Maple

Geometry Expressions is the world's first Interactive Symbolic Geometry System. This means: geometric figures can be defined by either symbolic constraints or numeric locations. Measurements on your drawing are not only presented numerically, but also expressed symbolically as mathematical expressions which can be exported to Maple for analysis. Where Maple

Maple 10

### Explore Maple 10 with a Free Demo Disk

Order the Maple 10 Demo disk and explore the features that make Maple 10 the ultimate productivity tool for solving mathematical problems and creating interactive technical applications.

### Maple Adoption Program™

maple Adoption Program

**Would you like to own your own home copy of Maple 10 for free?**

### Literature

**Placement Test Suite Whitepaper:** Developing, Validating, and Using A Placement Test.

### Maple Books:

If you are publishing a paper or writing a book related to Maple, we can help you! Please send your comments to applications@maplesoft.com.

### Events

automates the analysis of mathematical expressions, Geometry Expressions automates the creation of those expressions.

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**New Media Center**

We've created an online Media Center to help you keep up with the latest news and research past news about Maplesoft. You'll also find customer references and successes, documents and graphics available for download, links to our product suite, and much more. Please visit often to stay current on the latest developments.

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**New Version of MapleNet Available**

MapleNet 10.5 is the latest release of the enhanced web-based platform for deploying live technical knowledge and applications. This release features; better set up and performance, increased interactivity, and improved presentation control.

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**ICP for Maple Has Two New Add-Ons**

ICP for Maple now has two add-on products that extend its capabilities. The Actuator/Sensor Nonlinearities (ASN) Module, and the Multi-input, Single-Output (MISO) Modeling Add-On. The ASN Module compensates for the effects of non-linear operating areas in the creation of system models. MISO Modeling allows you to include multiple inputs in the determination of dynamic models.

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**Two New Maple Language Packs**

Maplesoft has launched two additional language packs for Maple 10 – a Chinese and Korean downloadable update. The Chinese language pack provides a translated version of the Maple 10 interface and translated context sensitive menus. The Korean language pack provides a translated version of the Maple 10 interface.

**TPEO Seminar—Mastering Engineering Calculations and Analysis**
November 10, 2006
6:30pm – 9:00pm
Toronto, ON
Click here for details.

**Canadian Mathematical Society Winter 2006 Meeting**
December 9 – 11, 2006
Sheraton Centre in Toronto
Toronto, ON
Click here for details.

**Joint Mathematics Meeting 2007**
January 5 – 8, 2007
New Orleans Marriott and Sheraton New Orleans
New Orleans, Louisiana
Click here for details.

**Chautauqua Short Courses for College Teachers**
June 6th - June 8th 2007
Pedagogy and Methodology of Using Maple in the Classroom
Grand Valley State University, Allendale, MI.
Click here for details.

See our Events page for other upcoming shows.

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**BlockBuilder for Simulink Japanese Edition Now Available**

BlockBuilder for Simulink Japanese Edition is now available for download. Featuring the full power of Maple™, it enables engineers to develop ideas from initial concepts to high-fidelity physical models and automatically generate Simulink S-Function blocks.

MapleCast

**October 20th, 2006 -The Long Journey**

Tom Lee sits down with Dr. Robert Lopez, Emeritus Professor of Mathematics from Rose-Hulman Institute of Technology and Maple Fellow, to discuss innovative and effective uses of tools like Maple for improving how mathematics is taught to students. He also shares many of his experiences over the years as he transitioned from Maple pioneer to guru. As well, Louise Krmpotic, Director of the Maple T.A. group at Maplesoft, gives us details about the Maple T.A. product line.


MaplePrimes is a repository of great user submitted Maple code. In the last month several useful posts were made by the site's users. Here is just a selection of the things you can find on MaplePrimes. First off see, Mariner's post on a way to have your plot tickmarks displayed with a trigonometric scale, "Pi tickmarks on the x-axis". Next, take a look at alec's two posts: "Numerical Inverse Laplace Transform" and "Nested Verification". Finally, check out "Testing objects for equivalence" by Karel Srot which improves on Maple's built in tools for checking if two objects are equal. The users on MaplePrimes are posting more useful tips every day. Come over to MaplePrimes and see it all for yourself.

## Product Tips and Techniques

Classroom Tips and Techniques: A Package for Graphing Solution Sets of Nonlinear Inequalities
Author: Robert J. Lopez, Emeritus Professor of Mathematics and Maple Fellow, Maplesoft

Maple Tip & Technique: Constructing Advanced Plots
Author: Maplesoft

## Maplesoft Seminar Series

Maplesoft's monthly web seminars provide an excellent opportunity for you to learn about interesting applications, new techniques, and upcoming products. Hosted live by senior Maplesoft product experts, these 1 hour interactive sessions offer the opportunity to ask questions and interact with the presenter. Whether you are a seasoned Maple user, or someone looking to find out what Maple is all about, this seminar series will offer an opportunity to learn something new and interesting.

- **November 14th, 2006**, 2:00 - 3:00 pm EST - Automated Testing and Assessment with Maple T.A.
- **November 15th, 2006**, 2:00 - 4:00 pm EST - Interactive Math in the Classroom with Maple 10 and The Mathematics Survival Kit
- **November 16th, 2006**, 2:00 - 3:00 pm EST - Engineering Modeling and Analysis using MATLAB and Simulink Connectivity Tools from Maplesoft
- **November 21st, 2006**, 8:00 - 9:00 pm EST - Introduction to Maple 10
- **Novemberr 22nd, 2006**, 9:00 - 10:00 am EST - Introduction to Maple 10
- **November 28th, 2006**, 2:00 - 3:00 pm EST - Introduction to Maple 10
- **November 29th, 2006**, 2:30 - 3:30 pm EST - Prototype and Simulate Vehicle Systems using Maplesoft's Design Engineering Tools

**Missed a seminar?** Check out our recorded seminar section where you can browse and view recordings of past seminars.

## Application Center Highlights

The Maple Application Center has received the following new applications over the last month:

### English

- Designing a Control System for a Magnetically Levitated Train
  Maplesoft
- Interacting Tank Reservoirs
  Dr. Samir H Khan
- Chaotic Pendulum
  Mr. Andy Gijbels
- Dynamic Equivalent Structures
  Harald Kammerer
- Fourier Series
  Dr. Tyler Haynes

### French

- Les paquet de Cauchy harmoniques ne sont jamais entier
  Mr. KERNIVINEN Sebastien
- Maple en classe préparatoire
  Claude Gueganno
- La méthode hongroise
  Mr. Andre Levesque
- Séries de puissances et séries de Fourier
  Mr. Andre Levesque
- Méthode de bissection et méthode de Newton
  Mr. Andre Levesque
- Analyse statistique
  Mr. Andre Levesque
- Dérivée, primitive et intégrale définie
  Mr. Andre Levesque
- Programmation linéaire
  Mr. Andre Levesque

## Maplesoft in the Press

Here are some highlights of this past months press coverage. There was a review of the Global Optimization Toolbox for Maple in IEEE Control Systems Magazine, and an article written by Tom Lee in Canadian Electronics.

**Feature Review**

Global Optimization Toolbox for Maple
**IEEE Control Systems Magazine, October 2006**

“The Global Optimization Toolbox for Maple provides a widely applicable, fully integrated development environment that can support control engineering applications and help realize the significant potential that global optimization has, as a valuable tool in control system design.”

The Math Behind Design Automation, by Tom Lee
**Canadian Electronics, September 2006**

“As modern engineering becomes more complex and as the timelines to innovations continue to shorten, more and more engineers are beginning to discover the benefits of comprehensive math systems in the industrial tool chain. Elimination of sign and unit errors, ability to perform “pre-simulations” on idealized models to determine feasible parameter spaces, and checking results can mean significant time savings and increased quality of design information.”

New Maple Package
**Desktop Engineering, September 2006**

“Mechanics of Materials is an ideal companion to Maple for researchers and mechanical or civil engineers who work with applied and structural mechanics and strength of materials.”

Maple Toolbox for MATLAB
**Design Product News, September 2006**

“The toolbox consists of two components: Maple 10, a tool for solving complex problems and creating executable technical documents; and the Maple-MATLAB Connector. The Connector is an add-on to Maple 10 that provides a two-way link between Maple and MATLAB, enabling isers to define variables in either environment and use them in the other.”

**TenLinks, September 2006**

**TenLinks, a site for technical professionals, published our last few product announcements.**

Maplesoft Offers 4 Engineering Toolkits for Simulation

“The Maplesoft Engineering Toolkits are suites of Maple -powered analytical design tools that offer a combination of powerful mathematical solvers with domain specific functions for particular applications.“

Maplesoft Offers Maple Toolbox for MATLAB

“With this Toolbox, Maplesoft offers a technical computing solution that is tightly integrated with MATLAB, providing direct access to all the commands, variables, and functions of each product while working in either environment.”

Maplesoft Offers BlockBuilder for Simulink Japanese Edition

“BlockBuilder™ for Simulink ® Japanese Edition is now available from Cybernet Systems Co., Ltd. BlockBuilder for Simulink Japanese Edition enables engineers to save time and dramatically reduce the risk of error in the model-based design of dynamic systems.”

In addition to these articles, check out the Media Center for all the latest coverage on Maplesoft.

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