つくる情熱を、支える情熱。
CYBERNET

For Immediate Release

July 14, 2020
CYBERNET SYSTEMS CO.,LTD.

CYBERNET has been recognized as an Advanced Solution Partner by ANSYS, Inc.

Multiscale.Sim, CYBERNET Multiscale Analysis System is now available on the Ansys Store and from Global Channel Partners.

CYBERNET SYSTEMS CO., LTD. (head office: Tokyo, President & CEO: Reiko Yasue, hereinafter "CYBERNET") is pleased to announce that CYBERNET has recently entered in to an agreement with ANSYS, Inc. (hereinafter "Ansys") to participate in its Solution Partner Program[1]. As a part of this agreement, CYBERNET will collaborate with Ansys to promote its multiscale analysis tool named Multiscale.Sim™ to Ansys software users worldwide.

Multiscale.Sim Paid-app on the Ansys Store

CYBERNET started selling a Paid-app version of Multiscale.Sim on the Ansys® Store starting from July 2020. Ansys software users worldwide can now purchase Multiscale.Sim 2019R2 directly from the Ansys Store or from authorized channel partners across Asia Pacific, Europe and North America.

CYBERNET have sold Multiscale.Sim to various research institutions and many companies in different industries across Japan since its first commercial release on June 25, 2007.

Multiscale.Sim is a multiscale analysis and simulation add-in tool for Ansys® Workbench™ environment.

Multiscale.Sim, developed using Ansys custom language[2], is a CAE tool that provides a system which is capable of multi-scale analysis such as macro structure analysis, micro structure analysis (localization) and numerical material test of micro structure using the homogenization model.
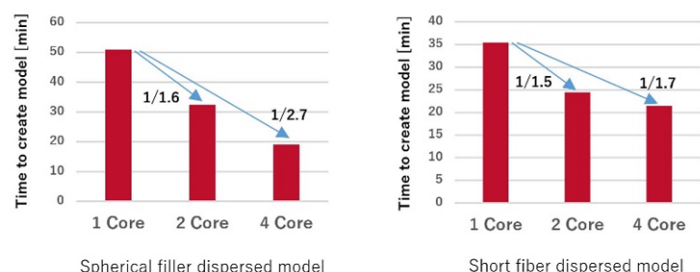
- Numerical material test can be used to identify property values of anisotropic material such as composite without having to carry out conventional physical material tests.
- It can also be used to complement analysis results of composites obtained by carrying out conventional methods.
- Multiscale.Sim can perform numerical material test on complex components such as PCB where it may be difficult to obtain accurate results by only physical material test.

Multiscale.Sim was initially developed in collaboration with Nitto Boseki Co., Ltd., Quint Corporation, Nihon University and Professor Kenjiro Terada of Tohoku University.

More details including analysis examples can be found on Multiscale.Sim website.

Multiscale.Sim version 2019R2

CYBERNET released Multiscale.Sim version 2019R2[3] in December 2019 with improved performance, GUI enhancements and several new features.

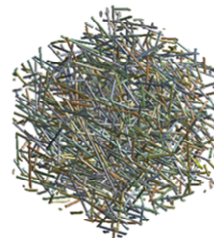*Sample comparison of time taken to create microstructural model between old and new versions*

Parallel computing and improvements to packing algorithm which were introduced in the new version enables faster microstructure modeling allowing its users to create complex microstructures with a higher volume fraction in lesser time.
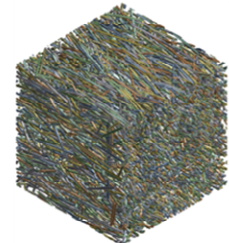
Latest version includes following new microstructure models as well.

1. Aggregated model
2. Circle dispersed model
3. Closest packing model

Random seed feature, Improved meshing, model extraction during production and hyper-elastic homogenization (non-linear) for Workbench GUI are among other new or enhanced features. 2019R2 Release Notes on Multiscale.Sim website has more details.

Multiscale.Sim 19.2
Achieved volume fraction: 5.0%
Time to create: about 33min.

Multiscale.Sim 2019R2
Achieve volume fraction: 24.8%
Time to create: about 6min.

[Geometric information: Diameter – 0.0625mm | Length – 5.0mm]

Sample comparison of achieved volume fraction of fiber between old and new versions (parallel computing option has been set to off in the case of new version).

Notes

*1:   CYBERNET is also an Elite Channel Partner of Ansys

*2:   Multiscale.Sim uses Ansys Workbench environment thus requires a valid and compatible Ansys license.

*3:   Latest Multiscale.Sim 2019R2 version is compatible with Ansys Workbench 2019R2 and Ansys® Mechanical™ 2019R2

About Ansys

If you've ever seen a rocket launch, flown on an airplane, driven a car, used a computer, touched a mobile device, crossed a bridge or put on wearable technology, chances are you've used a product where Ansys software played a critical role in its creation. Ansys is the global leader in engineering simulation. Through our strategy of Pervasive Engineering Simulation, we help the world's most innovative companies deliver radically better products to their customers. By offering the best and broadest portfolio of engineering simulation software, we help them solve the most complex design challenges and create products limited only by imagination. Founded in 1970, Ansys is headquartered south of Pittsburgh, Pennsylvania, U.S.A., Visit www.ansys.com for more information.

About CYBERNET

As a leading CAE technology services company, CYBERNETCYBERNET SYSTEMS CO.,LTD. has provided software, training services, technical support, and consulting services to a wide variety of fields, including the research and development and design-related sectors of the manufacturing industry and the research institutions of universities and governments, for more than 30 years. Meanwhile, in the ICT sector, the company provides not only the most advanced security solutions but also IT asset management tools and IT operation and management tools that are essential for improving the security level of companies. In recent years, the company has also been proposing solutions that combine CAE with AR and VR in areas such as the IoT, digital twins, big data analysis, and AI.

CYBERNET's brand message is "Energy for your innovation" and it aims to be a company that customers turn to when faced with increasingly diverse and complex technological problems.

Details of CYBERNETCYBERNET SYSTEMS CO., LTD. are available on the following website:

https://www.cybernet.jp/english/

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