Hermes 2020.01

Release Notes

XPEEDIC

ACCELERATE YOUR IC DESIGN

1. Overview

Impedance discontinuities such as via, trace, and non-ideal ground planes have an important effect on signal integrity for high-speed PCB and package designs. Hermes provides a fast and accurate way to extract those impedance discontinuities. The 3D full-wave electromagnetic solver inside Hermes provided the accuracy needed for high-speed designs. Both multi-core parallelization and distributed process are supported to gain further solver acceleration. Creating a 3D model is made easy with multiple automation on net extraction, area cut, and port definition.

The Release Notes cover the following releases:

Hermes 2020.01

Release Date: Sep 18, 2020

The Release Notes present the latest information about Hermes Version 2020.01 in the following sections:

2. Supported Operating Systems

Hermes 2020.01 is available on 64bit Windows. Obtain the appropriate binary executable files for your operating system. The supported platforms for this release include:

- Windows 7 SP1
- Windows 8.1 KB2999226 or above
- Windows 10

3. NEW FEATURES AND ENHANCEMENTS IN HERMES 2020.01

Hermes 2020.01 provides new features and enhancements as described in the following sections.

- Support import, display and edit Rigid-Flex PCB;
- Optimize algorithm to improve accuracy;
- Support import dummy net;
- Support component filtering;
- Support editing drilling material and copper roughness, export to HFSS;
- Support isolated copper removal option;
- Support editing air box;
- Support adding different solder balls to different pads of the chip;
- Support separate display of solder balls and dielectric of different layers;
- Support batch editing port;
- Support adding lump ports on solder balls;
- Support output S-parameter/Y-parameter/Z-parameter;

4. LEGAL NOTICE

The source code used in Hermes comprises of both Open Source and proprietary software components.

The Open Source components used in Hermes are:

- Qt 5.13.2

  This software uses the Qt library, a multiplatform C++ GUI toolkit from Trolltech. See http://www.trolltechcom/qt/ for more information.

- Clipper 6.1.3

  Freeware for both open source and commercial applications (Boost Software License).

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- QtXlsx 0.3

  This software uses the Qt library, a multiplatform C++ GUI toolkit from Trolltech. See http://www.trolltechcom/qt/ for more information.

- GCC 4.8.2

  cpp (GCC): Copyright (C) 2003 Free Software Foundation, Inc.

- MPFR 2.4.2

  MPFR is free. It is distributed under the GNU Lesser General Public License (GNU Lesser GPL), version 3 or later (2.1 or later for MPFR versions until 2.4.x). The library has been registered in France by the Agence de Protection des Programmes under the number IDDN FR 001 120020 00 R P 2000 000 10800, on 15 March 2000. This license guarantees your freedom to share and change MPFR, to make sure MPFR is free for all its users. Unlike the ordinary General Public License, the Lesser GPL enables developers of non-free programs to use MPFR in their programs.

- MPC 0.8.1

  The library is built upon and follows the same principles as GNU MPFR. It is written by Andreas Enge, Mickaël Gastineau, Philippe Théveny and Paul Zimmermann and is distributed under the GNU Lesser General Public License, either version 3 of the licence, or (at your option) any later version (LGPLv3+). The GNU MPC library has been registered

in France by the Agence pour la Protection des Programmes on 2003-02-05 under the number IDDN FR 001 060029 000 R P 2003 000 10000.

- GMP 4.3.2

  The GMP Announcements mailing list is a read-only list for announcements regarding the GNU Multiple Precision Library (GMP).

- Boost 1.72

  Boost C++ Libraries http://www.boost.org is licensed under the `Boost Software License V1`http://www.boost.org/users/license.html

- CGAL 4.9

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- Python 3.7.6

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- Inno Setup 6.0.4

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- Sklearn 0.21

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