



HyperLynx[™] Advanced Solvers Release Highlights

Software Version 6.1.2

November 2016

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Introduction

This document provides a high-level summary of the HyperLynx™ Advanced Solvers v6.1.2 release. Refer to the Release Notes on SupportNet for the list of specific known issues and workarounds.

This document includes a summary of the new features in this release. It also includes, if applicable, any authorization code changes required, any major installation changes, and any transitioning issues you should be aware of before installing. Additionally, any last-minute issues found in the final stages of testing are included.

Changes may be added to this document after the release. Refer to the Release Highlights documents on SupportNet for the most up-to-date release information.

Overview of HyperLynx Advanced Solvers

Mentor Graphics HyperLynx Advanced Solvers (formerly Nimbic) is a family of powerful 3D full-wave, quasistatic, and hybrid electromagnetic solvers. Each solution provides a host of analysis capabilities that typically are found in multiple products, and is augmented by complete Python scripting support that allows automation in complex flows and repetitive tasks. Analysis results are easily viewed and archived using detailed HTML signoff reports.

Based on proprietary accelerated boundary element technology, HyperLynx Full-Wave Solver provides unprecedented speed and capacity, while preserving gold-standard Maxwell accuracy. Full-Wave Solver is built from the ground up to exploit multi-core and hybrid computing architectures with its best-in-class fast solver technology enabling designers to achieve faster time to results to quickly solve their most challenging SI, PI, SSN, and EMI problems.

Full-Wave Solver HPC adds to this accelerated hybrid SI/PI model extraction and partitioned full-wave/hybrid solve capability as well as rapid distributed solve scaling for 3D full-wave high performance computing requirements. Both Full-Wave Solver and Full-Wave Solver HPC offer integration with HyperLynx BoardSim and LineSim for maximum efficiency, ease of use, and world-class capability.

HyperLynx Fast 3D Solver offers Maxwell accurate quasistatic parasitics extraction for complex packages such as stacked die. Detailed coupling matrices and IBIS package models are quickly generated either directly, or via integration with Mentor Graphics' Xpedition Package Integrator.

All of the products in the HyperLynx Advanced Solvers family feature chip, package, and board import capabilities from industry standard formats, with the ability to merge designs from different formats to provide seamless silicon-package-board co-analysis.

Summary of HyperLynx Advanced Solvers v6.1.2

Display / User Interface

- Error message cross probing to related mesh elements
- Graphics menu added with settings optimization function

Modeling

- Improved automatic port extension validity checking
- Improved polygon handling during user edits
- Ground plane simplification by removal of holes during cropping

Scripting

- Support added for circuit assignment via scripting

Flow and Import/Export

- RC-only SPEF output added in Fast 3D Solver for “across net” port configuration
- Improved netlist compatibility with Virtuoso in Fast 3D Solver export

HyperLynx Advanced Solvers Compatible Releases

HyperLynx Advanced Solvers v6.1.2 is compatible with:

- Xpedition Enterprise Flow X-ENTP VX.2.1
- Xpedition Package Integrator X-PI VX.2.1
- HyperLynx SI/PI/Thermal v9.4.1

Licensing

The HyperLynx Advanced Solvers v6.1.2 release utilizes Mentor Standard Licensing Server MGLS v2015_1. The latest version of MGLS is always available from SupportNet by searching for the product “System Administration” under the Product Finder. This version of HyperLynx Advanced Solvers requires a FlexNet license server running at version v11.13.1.2 or higher. If you use floating licenses and your license server is not at least a FlexNet v11.13.1.2, you will need to update the license server.

Authorization Codes

To utilize the HyperLynx Advanced Solvers v6.1.2 you must be on support contracts for this product as of November 2016. For more information about "Exact Access" authorization code formats, see the explanation on SupportNet at:

http://supportnet.mentor.com/about/other-info/exact_access.cfm

You may download your site's new authorization codes from SupportNet at:

<http://supportnet.mentor.com/myaccount/index.cfm?fa=user.licenses>

For additional information on licensing, refer to the *Licensing Mentor Graphics Software* manual (file name *mgc_licen.pdf*) located at the install root in the folder named *release_documents*.

Ordering Licenses

New users must order software licenses prior to installing Mentor Graphics software. To order licenses, contact your local Mentor Graphics sales office. They can provide you with information on the number of node-locked and floating licenses your company purchased and any current license sever configurations you may have. You must provide them with:

- Any new license server configuration
- The host ID numbers of client and license server workstations for node-locked licenses
- The host ID number of the license server workstation for all floating licenses

Existing Mentor customers are reminded that your licensing report is available at the SupportNet web site (<http://supportnet.mentor.com/myaccount>), and then choose the **Licenses** tab.

Note

The Customer Support web site requires a login and password. To register and obtain a password, go to <http://supportnet.mentor.com/user/register.cfm>. If you have difficulties, email csd_registration@mentor.com.

If you are registered, but have forgotten your password, go to http://supportnet.mentor.com/user/forgot_password.cfm

Support Information

If you have questions about this software release, please log in to SupportNet. You may search the KnowledgeBase with thousands of technical solutions or open a Service Request online at:

<http://www.mentor.com/supportnet>

If you do not have a SupportNet login, you may easily request one by filling out a short form:

<http://www.mentor.com/supportnet/quickaccess/SelfReg.do>

For phone support in the United States or Canada, please call 1-800-547-4303. For phone support in other locations, please contact your local sales office or distributor. All Customer Support contacts can be found on our web site at:

http://www.mentor.com/supportnet/support_offices.html

Product Installation

This release uses the new Mentor Graphics Standard Installation program. For additional information on installation, refer to Managing Mentor Graphics PCB Systems Software manual and the help system within the installation software. You can view this manual in the release_documents directory at the top level of the install download or DVD.

Supported Platforms

Minimum System Requirements

System RAM

- Windows Systems: 8 GB or greater
- Linux Systems: 16 GB or greater

Processor

- Dual or Quad-Core x86 CPU with clock speeds of 2.0 GHz or greater

Supported Windows and Linux Platforms

Supported Windows 64-bit Operating System:

- Windows 7 SP1, 8.1 & 10
- Windows Server 2008 R2 SP1
- Windows Server 2012
- Windows Server 2012 R2 (Standard and Enterprise)

Supported Linux 64-bit Operating System:

- RHEL 6.x, 7.0, 7.2
- SLES 11.2 and 11.3 (Desktop and Server)
- Ubuntu 12.04
- CentOS 6