PADS 9.5 Release Highlights

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For the Japanese version of the PADS 9.5 Release Highlights, please see SupportNet.

Introduction

Once again, the PADS® user community has been very active submitting product improvement suggestions on the Mentor® Ideas website. Several enhancements for PADS 9.5 came directly from these suggestions. Many thanks to all those who posted ideas, voted on others' ideas, and added comments or suggestions to help other users. Your feedback gave the PADS team a clear idea of what was important to you.

New Features

The following new features are available in this release:

In PADS Layout

- **Bottom View (Mentor Idea D254)**—PADS 9.5 now allows you to display your design from the bottom view. All functions (for example: placement, editing, routing) can be completed in either top or bottom view. The view can be toggled from the new toolbar button, the View menu, the modeless B command, or the Alt+B shortcut.

In PADS Layout and PADS Router

- **Automation Interface Enhancements (Mentor Ideas D2749, D3246, D3247, D3248)**—Additional automation methods have been added in PADS Layout and Router for:
  - Setting and getting the active layer
  - Running modeless commands
- **Virtual Pins**—Associated net support was added in PADS 9.4. DDRx routing enhancements to PADS is continued with the additional support of virtual pins in PADS 9.5. Virtual pins, also known as star points and branch points, allow you to define a point, typically from the driver, then “branch” out from that point to multiple receivers. You can then define unique clearances and high-speed design rules to this new topology.
  A virtual pin is a unique entity within PADS. Virtual pins are added to the design/net

from a popup menu, and are supported by typical features within PADS (move, delete, glue, select, add test point, view properties, and the Filter dialog box). Connections attached to virtual pins can be routed either interactively or automatically.

- **Placement Keepouts in Decals (Mentor Ideas D258, D383)**—Placement keepouts can now be defined directly in the Decal Editor. These new decal level keepouts are recognized by online DRC and Verify Design in both PADS Layout and Router.

In PADS Layout Viewer

- **Plane Connect in PADS Viewer (Mentor Idea D8539)**—Based on user requests in Mentor Ideas, the PADS Viewer now allows flooding of copper pours and plane areas instead of just restoring previously hatched areas.

In DxDesigner®, PADS Logic, PADS Layout, PADS Router

- **Chinese Translation**—PADS Layout, Router, Logic, and DxDesigner are now available in Simplified Chinese. All menus and dialog boxes have been translated. PADS supports English, Japanese, Brazilian Portuguese, and now Simplified Chinese.

In DxDesigner

- **DxPDF™ Included in the PADS ES Suite**—The ability to output intelligent PDF files from DxDesigner has been added to the PADS ES Suite.

- **New Start-up Screen**—A new start-up screen provides quick access to tasks and useful information at a glance. The new layout improves user efficiency.

- **Graphics Improvements**—Improvements have been made to the graphics presentation to make DxDesigner easier to use.

  - **New Grid**—There is a new grid that makes precision placement easier. The grid is aligned with the actual zoom level and provides the appropriate grid representation to efficiently and aesthetically position schematic objects.
    Pan and Zoom have been enhanced to make them smooth and without any steps. Just the move of the cursor or an object on the curser initiates panning when necessary. Pan speed is controlled by cursor position relative to the edge of the screen.

  - **Navigation View Window**—The Navigation View Window gives you a bird’s eye view of your schematic sheet. Navigation via the Navigation View Window allows you to perform rapid window area moves across the schematic sheet without any intermediate zoom or pan steps.

- **Other Enhancements—Layered graphics** are now supported, which can create more advanced schematic documentation. You can specify objects to be in the foreground or background. The new **in-line and multi-line editing** capability allows you to initiate text editing tasks, in place, without any unnecessary steps in between. Support of system fonts provides additional documentation flexibility and also streamlines system consistency.
  The **Dynamic Graphic Violation Highlight** capability improves schematic quality and minimizes manual debugging time and effort. Graphic overlaps of Nets, Symbol Graphics, Properties, other text, and other objects are detected and automatically highlighted by the system, with a hyperlink to allow you to manually fix the highlighted item.

- **Consistent Windows-like Layout Across Platforms**—The new Windows-like layout not only provides an ultra-modern look and feel on all platforms, it also gives you the ability to adjust the environment to your personal needs and preferences, including window docking/undocking, sliding windows, and auto hide. This flexibility results in higher productivity of each user.

- **Tool Tip Hierarchical Preview and Navigation**—This new feature provides a thumbnail view of the underlying hierarchical block for easy navigation to the schematic contents. The thumbnail is selected by clicking the "+" in the Tool tip View. From the thumbnail view, simply double-click the thumbnail to open the full-size schematic view. You can also click the arrow to navigate to other sheets. This new feature results in a substantial ease-of-use improvement for hierarchical designers. Now, you can preview the schematic contents underlying each block for visualization and then simply navigate to the circuitry of interest with a double click.

- **Connectivity Advisor**—This new feature provides you with a visual indication as you close in on complex net and bus connections. As you close in to within the pin snapping distance to make complex connections, you will see a visual indication that a successful connection is to be made so the move can be completed with 100% confidence, preventing any undos or rework of the connectivity.

In I/O Designer™

- **New FPGA Vendor's Device Libraries and Software Support**—In this release, the following are added:
  - Xilinx ISE 13.4, ISE 14.1
    - Zync devices (new)
    - Artix 7 and Artix 7l devices (new)
  - Altera Quartus 11.1 SP2
    - Arria V devices (new)

    - Cyclone V devices (new)
  - Actel Designer 9.1 SP4, Designer 10.0

- **Newly Integrated HDL Parsers**—New VHDL and Verilog HDL parsers have been added, matching Mentor Graphics FPGA design solutions (for example, Precision®).

- **Unraveling Enhancements**—Several improvements have been made that improve the performance of the unraveling algorithm. In addition, there is new a capability to limit unraveling to the pins on selected FPGA only.

- **Symbol Generation Enhancements**—Left and right pin placement for power pins are added to the Symbols Generator. Existing pin locations are kept when regenerating symbols; only newly added pins have new locations.

Authorization Codes

No changes to authorization codes (license file) are required for this release. However, the exact access date has increased to 2012.06. For more information about the exact access date, please see the following SupportNet page:

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

You can download a current copy of your authorization codes from the following SupportNet page:

`http://supportnet.mentor.com/myaccount/index.cfm?fa=user.authCodeForm`

You may request your existing or updated authorization codes by opening a non-technical Service Request on SupportNet:

`http://supportnet.mentor.com/`

For additional information on licensing, refer to the *Licensing Mentor Graphics Software* manual.

Installation Information

PADS 9.5 is a completely separate installation from previous PADS releases and uses new installation methods to create an easier installation experience. Database and ASCII formats for Layout and Router designs have been updated. The PADS library format has not changed. PADS Logic ASCII and database format are the same as PADS 9.x. The Installation path for PADS 9.5 is still C:\MentorGraphics, but installs using a new folder to prevent overwriting an existing software installation.
While PADS 9.4 installs the unique *C:\MentorGraphics\9.5PADS* folder and does not overwrite previous PADS installations, you should back up your existing PADS installation, designs and libraries prior to installing PADS 9.5. If you have been part of the PADS 9.5 beta program uninstall beta software before installing the released version of PADS 9.5.

For additional information on installation, refer to:

- *PADS Installation Instructions* (PADS_9.5_install.pdf), available from the release_documents directory at the top level of the DVD or download image.
- *Managing Mentor Graphics Systems Software* (manage_sw_pads.pdf) manual, available from the release_documents directory at the top level of the DVD or download image.
- Help system within the installation software.

Upgraded licensing software (FlexNet 11.10)

If you are running the PADS Flow software with network/floating licenses, the license server must be upgraded to the 11.10 version of the Lmgrd and Mgcld daemons. Users with nodelocked uncounted/mobile compute licenses are not affected by this change.

Refer to TechNote `MG55496` for details on the upgrade.

Dongle Discontinuations

Several old parallel port hardware keys are no longer supported by the FlexNet 11.10 licensing software. See the following SupportNet technote for more information.

`http://supportnet.mentor.com/reference/technotes/public/technote.cfm?id=MG579622`

The Mentor Graphics Documentation System

This release includes the updated v3 Mentor Graphics Documentation System—comprising a search and navigational interface called InfoHub™, and documents in PDF and HTML formats.

NOTE: An updated v3 movie is available on SupportNet (accessible from this link and from the "InfoHub Overview" link in the InfoHub footer). Watch the movie for an overview of highlights and tips on getting the most from InfoHub.

InfoHub Enhancements

- **Updated Search**—Substantially improved search performance.
  - Refined search algorithm, to increase relevancy of hits.
  - Results list appears within InfoHub (instead of the Search tab in the sidebar of a document.
  - SupportNet-like results, with filtering options, snippets, and page navigation.
  - Contextual links in the results to submit searches to SupportNet, for quick access to content not available in InfoHub.
- **New Release Information Scope—**Quickly scan the available release content, as well as other materials pertinent to the release.
- **New My Document List Scope—**Create a custom list of documents for quick access to documents and enhanced searching.
- **Custom Tab Displayed By Default—**Add links to the Custom tab of InfoHub to create your own InfoHub tab of links. Use this tab to customize the InfoHub experience by providing company-specific links to information. To learn how to customize the Custom tab, click the "Custom Tab" link in the InfoHub footer.

HTML Document Enhancements

- Substantially improved search performance and other enhancements:
  - Search limited to current document only.
  - Filtering options.
  - Search snippets display by default.
  - Results list page navigation.

    - Contextual links to submit searches to SupportNet, for quick access to content not available in InfoHub.

- Support for native browser bookmark/favorites.
- Refined index navigation — index entries limited to current document only.

Providing Feedback

We welcome your feedback on the documentation system. You can access the feedback form in multiple ways, for example:

- Click **Feedback** in the button bar of HTML documents.
- Click **Documentation Feedback** in the Bookmark list of PDF documents.

If interested, you can discuss your feedback with the technical writer responsible for the documentation for your product line.

Support Information

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

`http://supportnet.mentor.com/`

If your site is under current support and you do not have a SupportNet login, you may easily register for SupportNet by filling out the short form at:

`http://supportnet.mentor.com/user/register.cfm`

All customer support contact information can be found on our web site at:

`http://supportnet.mentor.com/contacts/supportcenters/`