PathWave Model Builder (MBP) 2020 Update 2.1 Release Notes

KEYSIGHT TECHNOLOGIES

Notices

Restricted Rights Legend

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PathWave Model Builder (MBP) 2020 Update 2.1 Release Notes

The PathWave Model Builder (MBP) 2020 Update 2.1 contains enhancements and defects fixed from the previous versions.

For general information about PathWave Model Builder (MBP), visit Keysight EEsof product webpage at: http://www.keysight.com/find/eesof-products.

What's New

New Features and Enhancements

- Upgraded the default Java version to JDK 8 Update 202.
- Added new model BSIM-CMG 111.1.0
- Added new model BSIM-IMG 102.9.4
- Added new model BSIM-BULK 107.0.0
- Supports HiSIM_HV 2.4 with COSUBNODE=1

Defects Fixed

- Fixed the issue of IMV constants that can only be extracted from first loaded device data.
- Fixed the issue of parsing expression without single quotes for HSPICE.
- Fixed the issue that PathWave Model Builder (MBP) cannot work when subckt model and compact model have the same name.

Known Issues

- When the display resolution used by the user is relatively high, 2K or 4K, after PathWave Model Builder (MBP) is opened, the display interface and font size will be small.
  Workaround: You need to manually find the mbp.bat in the $MBPHOME directory. Edit the bat file, add option -Dsun.java2d.dpiaware=false. The configuration statement is shown below.

```
18  start "" "%JDKHOME%"\bin\java  -Xmx1024M -Xms50M -classpath
    ".";"./jdom.jar";"./DrJava.jar";"./commons-logging-1.1.jar";"./log4j-1.2.11.jar";"./mbuilder.jar";"./eqviewer.jar";"./jef/JavaEngine.jar";"./jytho
    n.jar";"./commons-net-2.0.jar";"./SSH2.jar";"./visualdata.jar";"./report.jar";"./license.jar";"./libparser.jar";"./global.jar";"./json.jar";"./jna
    .jar";"./poi.jar";"./poi-ooxml.jar";"./poi-ooxml-schemas.jar";"./xmlbeans.jar" -DMODELBUILDER_HOME="%MBPHOME%" -DMBPHOME="%MBPHOME%" -DPVM_TMP="
    %PVM_TMP%" -DPVM_ROOT="%PVM_ROOT%" -DPVM_ARCH="%PVM_ARCH%" -Dsun.java2d.dpiaware=false com.accelicon.modelbuilder.ModelBuilder
```

Licensing

- MBP requires: a) the **version 2019.02** of the EEsof EDA licensing software, b) a minimum code-word version **2019.02 or above**, and c) the licensing server software, **lmgrd** and **agileesofd**, to be upgraded to at least the same versions as what are included in EEsof EDA Licensing software **2019.02** MBP will not start if any of these requirements is not met. Refer to the License Codeword Version Compatibility Table.
- In the EEsof EDA License Tools version 2020.02, licensing vendor daemon (*agileesofd*) is integrated with FlexNet FNP **11.16.5.1** version (Windows) and FlexNet FNP **11.16.5.1** version (Linux) of FlexNet license manager daemon (*lmgrd*). For the Windows platform, MBP installer will automatically set up

these two new license server daemons by default for the local node-locked license users; for the Linux platform, you need to follow the Setting Up Licenses on Linux instruction to complete the licensing configuration process. For more details, refer to Licensing (For Administrators).

Documentation

Starting with the 2020 release, the online help gets a new user interface. The new UI improves overall online help usability by providing the following key benefits in addition to several other minor benefits:

- **Table of Contents Sidebar**: Displays collapsible Table of Contents for the entire documentation. The left-double-arrow icon collapses the sidebar, and the right-double-arrow icon displays the sidebar back again.
- **PDF Button**: Allows you to instantly generate PDFs of the latest documentation anytime, including current page's children pages. Currently, the PDF generation option is available only for 2020 release. For other releases, you can switch to their Printing Manuals page and download the existing PDFs like earlier.
- **Product Release Switcher**: Allows you to view the current page in other supported releases listed in the drop-down menu. Once you select a release from the drop-down menu, the current page is updated to show the content applicable to the selected release. The Table of Contents is updated as well. With this, you bookmark URL of only one release and then switch to other releases from this drop-down menu.
- **Latest Documentation**: The documentation available in the new UI is always kept updated for all supported releases. These updates are available to you as soon as they happen at our end. This provides you 24x7 access to the most recent and technically accurate documentation.

For more details, see How to Use Online Help.

Licensing Issues Fixed

- The issue related to the vendor daemon ***agileesofd*** could sometimes crash while the License Manager and the Product Selector was running on a remote Windows 8 machine has now been fixed with the newer FlexNET publisher 2015 (also known as version 11.13.1) that is automatically installed by the MBP installer.

- Unable to setup PathWave Model Builder (MBP) Licenses using License Setup Wizard

Operating System Support

The following are PathWave Model Builder (MBP) supported platforms:

Supported Platforms

The following are MBP supported platforms:

OS and Version	Windows XP	Windows 7 Enterprise	Windows 7 Enterprise	Windows 8 Enterprise	Windows 8 Enterprise	Windows 10	RedHat Linux RHEL4	RedHat Linux RHEL5	RedHat Linux RHEL6	RedHat Linux RHEL7
32/64 bit	32/64	32	64	32	64	64	64	64	64	64
MBP 2011.2.0	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗
MBP 2012.07	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗
MBP 2013.01	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗
MBP 2014.04	✗	✓	✓	✓	✓	✗	✗	✓	✓	✗
MBP 2016.01	✗	✗	✓	✗	✓	✗	✗	✓	✓	✗
MBP 2017	✗	✓	✓	✗	✗	✓	✗	✓	✓	✓

OS and Version	Windows XP	Windows 7 Enterprise	Windows 7 Enterprise	Windows 8 Enterprise	Windows 8 Enterprise	Windows 10	RedHat Linux RHEL4	RedHat Linux RHEL5	RedHat Linux RHEL6	RedHat Linux RHEL7
MBP 2019	❌	✅	✅	❌	❌	✅	❌	❌	✅	✅
MBP 2020	❌	✅	✅	❌	❌	✅	❌	❌	✅	✅
MBP 2020 Update 1.0	❌	✅	✅	❌	❌	✅	❌	❌	✅	✅
MBP 2020 Update 2.0/2.1	❌	✅	✅	❌	❌	✅	❌	❌	✅	✅

Legend		Description
	✅	Supported
	❌	Unsupported

Documentation

- On Windows, Printing directly from installed help generates non-readable output. **Workaround**: Use PDF version of the document for printing purpose.

- In the installed help when you open a page using the "Open a link in new tab" option the help does not open a page in a different tab by default. You need to set the preferences to open any link in a new tab. To set the preferences:
    a. From the 201x version of the installed help, Click **Edit > Preferences**. The Preferences Dialog box is displayed.
    b. Select the **Options** tab.
    c. Under Appearance, select the **Show tabs for each individual page** option.
    This is one time setting for a particular release of a product.
- While using the installed help, you may encounter issues like help not showing any content, it throws an error, it displays unexpected hierarchy in the Content tab, or it does not display any search results.
  Workaround: Close the help, delete the contents of the following directory and open the help again.
    ◦ On Windows: `C:\Users\<Windows_Login_ID>\AppData\Local\Keysight\Help`
    ◦ On Linux: `$HOME/.local/share/Keysight/Help`
- The installed help search does not support [] or {} or any other text using these combinations.

Known Issues - Licensing

- Unable to install Licensing Hardware Key Drivers on Windows.
  Workarounds:
    ◦ Turn off UEFI Secure Boot (BIOS) and use the default 6.3 version of the Wibu key driver delivered with the EEsof Licensing tools.
    ◦ Turn on UEFI Secure Boot (BIOS), upgrade to ADS 2020 Update 2.0 and use the 6.51 WibuKey driver version available in the 2020.02 License tools installation directory.

      | NOTE | You will not be able to run older ADS releases with the 6.51 WibuKey dongle drivers |

- Setting FLEXLM_DIAGNOSTICS to the highest level (FLEXLM_DIAGNOSTICS=3) on Windows client may cause a crash during license checkout. Flexera is investigating this issue.
  Workaround: It is recommended not to use the FLEXLM_DIAGNOSTICS on Windows clients or use it at lower level (FLEXLM_DIAGNOSTICS=1 or FLEXLM_DIAGNOSTICS=2).
- WibuKey 6.5 software driver is not supported on SuSe 11.
  Workaround: Use the older WibuKey 6.30 software driver (WkRt-Lin-6.32.1504-500.x86_64.rpm).
- Licensing may not support a license file path that is too long. This will likely occur when you have too many license files.
  Workaround: Remove some license files, move the license files to a shorter directory path or to combine license files into a single file.
- License Setup wizard may not be able to start license server with many license files. During setup, it may lead to a situation where a command prompt window appears/disappears incessantly. This is due to the fact that License Setup wizard is not able to start lmgrd with a long command line and may get stuck in a loop.
  Workaround:
    a. It is recommended to combine all license code words tied to same MAC ID into single license file to avoid setting large number of license files.
    b. Try to use a shorter path to place license files.
    c. If **1** and/or **2** does not help, start the license server (*lmgrd.exe*) from the command line (e.g. *lmgrd.exe -c <lic-file-path> -l <license_server_log.txt>)* and then set

<PRODUCT>_LICENSE_FILE=<PORT-NUMBER>@localhost for product you want to use on same PC.

▪ Dongle drivers for Flex-10 dongles on Linux are release specific. Installing the latest dongle drivers on Linux will function properly only for the most recent EEsof releases.
Workaround: Install and use dongle drivers as needed. If you need to run the most recent EEsof releases, use the latest Flex-10 dongle driver. If you need to use older releases, uninstall the latest dongle driver and re-install the older dongle driver

▪ FLO and EEsof License setup are writing server logs at different locations. However, the EEsof server log file location is updated in the License Manager > Environment tab.

▪ When multiple *same-named* INCREMENT lines *of different version* exist on the license server, few advanced FlexNet options to reserve/limit licenses may not work properly.

▪ Product Selector "Check Availability" generates incorrect results (which leads to license failure) for older releases when multiple date base versions of like-named bundles exist in the license pool.

▪ In Linux, Product Selector **OK** and **Cancel** Buttons locations are reserved.

▪ Starting from FlexNet Publisher 2015 (also known as version 11.13.1), the adoption of the best practice of the least-privilege security therein results in the License Server related Windows Service to run with the LocalService Account privilege (instead of the LocalSystem privilege as before.) Running with the LocalService Account privilege, an executable can no longer access any files located in the per-user specific type of folders. As a result, any license file placed in those folders can no longer be accessed by the License Server when the License Server is automatically started via the Windows Service upon each PC reboot. For the local node-locked license, this would not result in any disruption to the usage of EEsof applications; however, for the license installed on a network PC that is accessed by multiple client PCs, this may cause EEsof applications not to start after the network PC reboots
Workaround: Store your license files in the Windows folders that are accessible by the LocalService Account privilege. For example, C:\ProgramData or C:\users\public are both qualified choices. In general, any folder that has the "*Users*" group listed in its Properties > Security page and this "*Users*" group has the *read* permission enabled should work.

▪ Using the default port to connect to a license server may cause a delay when checking out licenses. If no port is given in the license file, Flexera scans ports 27000 to 27009 to find the port. Starting from FlexNet Publisher 2015 (aka version 11.13.1), the default timeout for the response from each port increased from .1 seconds to 3 seconds.

To avoid the delay, KSM now issues licenses with port 27009 instead of leaving this blank. The EEsof License Setup Wizard (from Licensing 2017.01 onwards) handles some common situations such as: where it detects license file(s) without port, when users get a new license file with port 27009, or when all license files for a vendor daemon does not have same port.

> NOTE You will not be able to start the license server if all license files for a vendor daemon on a server does not have same port.

Users who manually setup a license server or using EEsof License Setup Wizard with older licensing bits may need to manually edit license files to comply with the following rules:
a. All license files for a vendor daemon on a server must use the same port (or all be blank).
b. Using the default port (blank) is allowed but may result in longer checkout times.
c. If setting up a network server, select an unused port that is not blocked by a firewall.
Workaround: If the user cannot change the port, or wants to use the default Flexera ports, the environment variable FLEXLM_TIMEOUT can be set to .2 seconds (200000), to minimize the performance degradation. However, if the network latency is an issue in your environment, you may need to fine-tune this setting to minimize the general performance degradation while still accommodating the network latency.

- Installation of EESof EDA tools (such as, SystemVue 2016.08, Genesys 2017.XX, or ADS 2017.XX) may hang at 4% (percentage vary based on the products) for few hours or even more on some specific machines.
  Workarounds:
  - Disable Firewall setting in Anti-Virus Software installed on the PC.
    or
  - Download and unzip process explorer from the below link and then invoke *procexp.exe*.
    https://technet.microsoft.com/en-us/sysinternals/processexplorer.aspx
    Right click on the *wusa.exe* process under <Product installer exe> and select KillProcess. Now it will continue the product installation.
- After installing EESof EDA tools (such as, SystemVue 2016.08, Genesys 2017.XX, or ADS 2017.XX) successfully and try to invoke the software or License wizard, you may encounter "api-ms-win-crt-runtime-l1-1-0.dll" missing error.
  Workaround: Install the Update for Universal C Runtime in Windows . On Windows 64-bit system systems, the file to install is x64 version of the Microsoft hotfix KB2999226. A copy of the Windows6.1-KB2999226-x64.msu Microsoft 64-bit hotfix installer can be found under the `C:\Program Files\Keysight\EESof_License_Tools\bin` directory. The Microsoft hotfix KB2999226 can be found under the Update for Universal C Runtime in Windows page at https://support.microsoft.com/en-us/help/2999226/update-for-universal-c-runtime-in-windows as well.
- On a newly formatted RHEL system, the EESof Licensing tools may fail to boot. This is because the FlexNet Publisher 2015 requires a certain rpm
  Workaround: Under the EESof product installation directory, there exists a utility script named "*Linux_sys_check.sh*" under the *bin* directory. Run this script to find out whether any rpm is missing; run this script with a "-y" command-line option to also have all the missing rpms automatically installed if you have the *sudo* or *root* privilege.
- License server may stop recognizing Flex-10 dongle on some systems within a few hours after starting
  Workaround: If v6.10 or v6.11 is found and experience this problem then upgrade the WibuKey drivers to v6.30/6.30b from Wibu Systems.
- Unable to install Flex-10 driver if Flex-9 dongle is already plugged into a machine
  Workaround: Before installing a Flex-10 driver for the first time, unplug the Flex-9 dongle.
- There is a known FlexNet Publisher issue, whereby mixing node-locked codewords and floating codewords in one license file can result in: a) Remote simulations not working or b) A second local simulation not working in case the license is node-locked and also has incorrect version.
  Workaround: It is strongly recommended that you do not mix node-locked codewords and floating codewords in one license file nor in *any* configuration that ends up with node-locked codewords and floating codewords both available on the same server. In other words, put the node-locked license and the floating license on different servers, and point to the respective one based on what you need to run.
- If a user simultaneously runs two instances of a product and has mixed different versions of the same codeword on one license server, extra licenses may be pulled and result in unexpected "`Licensed number of users already reached for this feature`" errors.
  Workaround: We recommend you remove expired codewords, to separate out the new and the old versions of codewords into different files and different servers, and to point to the respective one based on what you need to run.
- Not specifying the TCP/IP port for the license server during license setup may lead to unexpected behavior and/or license checkout failure on the Windows platform. We strongly recommend you to always explicitly specify the TCP/IP port associated with each license server.
- A node-locked and floating bundle operating on Linux cannot be shared between products using EDA License Tools version older than 2014.01 when run at the same time.
- License Setup Wizard does not remove any previous user-configured FLEX Windows License Service manually set up by a user using FlexNet's lmtools.
  Workaround: You must remove the previous user-configured Windows License Service via lmtools.

○ Run the lmtools.exe from `C:\Program Files\Agilent\EEsof_License_Tools\bin` to invoke the lmtools utility. The lmtools utility window is displayed.

> `CAUTION` If you have installed an EEsof product released before 1ˢᵗ August, 2014 on your system prior to installing an EEsof product released after 1ˢᵗ August, 2014 then the default EEsof Licensing tools path will remain `C:\Program Files\Agilent\EEsof_License_Tools`. On the systems that only have EEsof products released after 1ˢᵗ August, 2014 installed then the default EEsof Licensing tools path will be `C:\Program Files\Keysight\EEsof_License_Tools`.

○ In the **Service/License File** tab, check the **Configuration using Services** option. All user-configured FLEX Windows License Services will be listed.
○ Select the service you wish to remove.
○ Select the **Config Services** tab and click the **Remove Service** button to remove the service.
To ensure that the license service or *lmgrd* is running, click **View Log**. A log window appears that confirms whether *agileesofd* and *lmgrd* are up and running.

- While running multiple versions of prior MBP releases together, set MBP_MAXIMUM_BUNDLE_USAGE=ON in your environment so that all of them will use the same method to check out licenses. Otherwise, you might receive an error message, "Licensed number of users already reached".
- On some Windows 7 machines, when more than one definition of an Ethernet adapter exists (duplicates), license checkouts may appear to hang up.
Workaround: Disable the duplicate network card definitions in your network settings: **Control Panel** > **Network and Internet** > **Network Connections**. This issue has been acknowledged by Flexera and they have created a bug report (SIOC-000103097).
- For LSF style distributed simulations, ensure that the PATH on the client computer points to the $HPEESOF_DIR/EEsof_License_Tools/${architecture} directory that corresponds to the EEsof release being used. This needs to be done in order to ensure that the proper version of the Flexera utilities (like *lmutil*) gets picked up in the path before any older in-compatible versions (that may also be installed on a users' system.)
- **License Setup Wizard** (*aglmwizard.exe*), which is used to set up and record the license path would not work if you already have an environment variable set for MBP_LICENSE_FILE.
Workaround: You can use *MBP_LICENSE_FILE* variable to point to license file or refer to Licensing (For Administrators).
- The License Setup Wizard will exit or not properly configure a license server, if the server has all of its licenses currently in use.
Workaround: Wait for a license on the server to become available as you normally would before launching the product.
- Unable to set license in case unicode characters are used either in path or license file name because the Flex License Service does not support these characters.
- The Product Selector tool will be unable to display the license server status properly when connected to older license server.
Workaround: Upgrade your license server to the latest version.
- EEsof Licensing Tools installer can hang on systems with McAfee LiveSafe installed and running the default firewall settings.
Workaround: Prior to installing EEsof Licensing Tools, temporarily turn off the McAfee LiveSafe firewall.
- Licensing setup steps on systems with McAfee LiveSafe installed can fail.
Workaround: Under the McAfee LiveSafe firewall settings, under Port and Settings, allow the use of port 27001 for lmgrd.exe under the EEsof Licensing Tools installation bin directory. Under Internet

Connections for Programs , enable lmgrd.exe, aglmmgr.exe and aglmwizard.exe for all devices and turn off monitoring.
- On Windows, EEsof product releases prior to 2014 can have boot time issues with licensing if an newer EEsof product is installed prior to installing the older product. For example, if a users installs Advanced Design System 2017 and then installs Advanced Design systems 2014.01, the user can have boot time errors with ADS 2014.01.
  Workaround: For Advanced Design System users, set a system environmental variable named ADS_LICENSE_FILE under the Control Panel/ System, and Security / System / Advanced system settings and under the "environmental variables". Add an System variable named ADS_LICENESE_FILE and the value will be the path to your local license file or the port@host setting for your site.

This information is subject to
change without notice.

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