

PathWave Advanced  
Design System 2021  
Update 1.0

# Release Notes

# Notices

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# Advanced Design System 2021 Update 1.0 Release Notes

For general information about Advanced Design System (ADS), visit ADS webpage at <http://www.keysight.com/find/eesof-ads>.

**NOTE**

Starting ADS 2020 release, the Linux system requirements have been updated:

- Support for Redhat 5.x has been discontinued.
- Updated the system libraries and rpm files. Following is the list of minimum patch versions required:
  - Redhat 6.10
  - Redhat 7.2
  - Suse 12.2
  - Suse 11.4

Few ADS features will not work properly, in case you have installed lower patch versions than the above-recommended versions.

For more information, refer to [Supported Platforms](#).

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## Feature Updates

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## Design and Technology Management

- Restored ability to set window size and position.
- Enhanced Copy Cell to allow overwriting/replacing referenced data files.
- Enhanced Manage Libraries *lib.def* editing to retain but notate, in lieu of removing, invalid libraries.
- Improved Reference performance by caching reference information to disk.

## Known Issues



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## Design Editing

- Supported full-blown polygon editing in the Properties docking window.
- Enhanced the Keepout object to support the avoidance routing. For more information, see [Creating Keepout](#).
- Added ability to specify any substrate file as the master substrate. For more information, see [Master Substrate](#).
- Enhanced symbol related creation or editing commands to support orientation of instance-based pins
- Enhanced Create Pin interface to support creation of area pins from existing shapes
- Added a new preference to disallow connecting a pin to ground in schematic. For more information, see [Overview of Schematic IC Interoperability](#)
- The support for the following capabilities is frozen with the previous ADS 2021 release:
  - Import/Export of Mentor Boardstation PCB Link files
  - Dynamic Access for Mentor Design Kit.

### Known Issues



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## Data Display

- Added Drag and Drop support from Expression Manager to DDS page.
- Added Equation Insert in [Expression Manager](#).
- Better organized font selection menu that also includes the Most Recent Fonts anew.
- Supported indexing a swept variable using another variable as the index
- Improved error reporting in AEL expressions and ADX translation.
- Added a menu option to select all traces in selected plots.



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## Circuit Simulation

- **General**
  - Implemented [HiCUM L0 Version 2.0](#).
  - Implemented [BSIM-IMG 102.9.4](#).
  - Implemented JFET100 Version 0.51.
  - Speed improvements when parsing large PDK models.
  - Bug fixing:
    - Expressions as Laplace source coefficients are now correctly handled in non-ADS netlist.
    - Fixed the issue where Grid Engine does not really support user group, removed it from menus.
    - Implemented support for .nodeset for spice netlist.
    - VTB now creates \*.ds file in data folder along with \*.adx file.
    - Fixed the floating point exception in juncap 2 diode model.
- **ElectroThermal**

- Added "Skip storing each sweep point GDA file" option to avoid create of *.gda* files and save disk space after performing a sweep simulation.
- Added Error/Warning for duplicate power sources.
- Ability to avoid *.gda* file creation to save disk space.

## Known Issues



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## HSD Design

- **SerDes**
  - Provides improved Channel Sim solution with support for **multiple Tx/Rx**, also known as multi-lane support (such as PCIe).
  - Provides Channel Sim solution for **PAM3, PAM8, and PAM16** for Automotive Ethernet and MIPI A-PHY.
  - Enabled FlexDCA probe to access directly from a sub-circuit based net names and net names.
  - Simulation status window (log) now includes status about connecting to Infiniium/FlexDCA software.
- **DDR/Memory**
  - New LPDDR5 solution that supports WCK and RDQS new signal types and single-ended clock.
  - Improved BatchSim setup, that displays detailed information such as Parameter name and Signal name(s).
  - Improved usability for DDR\_Term component.
  - Improved usability for DDR\_PCB component handling SIPro cells.
  - Improved usability for handling CSV files.
- **EM-SIPro/PIPro**
  - CILD: Goal value of Zc diff and Zc common values now set automatically to default.
  - Capture load time of layout rendering while opening XXPro Setup.
  - Switching VRM port editor add-on.
  - Fixed the issue where simulation becomes unstable if port length is too long.
  - Added support for reference pins in SIPro/PIPro.
  - PIPro Sink Editor now supports the use of a lumped R-L-C or an S-parameter defined package model.

## Known Issues



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## EM Simulation

- **RFPro**
  - Analyze the impact of conductor conductivity and dielectric permittivity material bias. For more information, see the Process Variation section in **Full EM Extraction Analysis**.
  - Components that are made invisible are now grayed out in the design tree to show this state.
  - The FEM simulation bounding box is no longer shown in the Geometry window. Its actual dimensions are only known during the simulation.

- The cds.lib parser now expands variables recursively.
- Duplicating a user-defined analysis now duplicates the frequency plan.
- Upgraded the HOOPS Visualize library to version 2410.
- **Momentum**
  - Faster Green function computation.
- **FEM**
  - Addressed an issue where a FEM simulation could fail while writing huge data files.
- **BroadBand Spice Model Generator**
  - Fixed a model generation issue when a .sio format file was used as input.
- **LTD Substrate Editor**
  - TSMC N3 iRCX files can now be successfully imported.

### Known Issues



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## Power Electronics

### Power Electronics Professional (PEPro)

This list of improvements to Broadband SPICE Model Generator (BBSMG) are mainly aimed at PEPro users, but they are available to all ADS users because BBSMG is licensed in ADS Core

- Added a new option to export PSpice compatible model. For more information, refer [Creating Broadband SPICE Models](#).
- Added instructions and best practices for creating a PSpice compatible model. For more information, refer [Exporting a SPICE Compatible Model](#)
- Added an indicator for reading large input files when using Advanced Input Options.
- Fixed a bug in the stop simulation functionality.
- Fixed a crash error when enforcing passivity without enabling global poles.
- Fixed a bug in the data display template.

### Design Import/Export

- Added support for LTspice compatible "vswitch" element in the Netlist Importer.

### Known Issues



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## Verification

### PVS DRC Link

- Cadence PVS (Physical Verification System) DRC is now available as an option when running DRC from ADS Layout.
- In the DRC Dialog, see the Options tab. For more information, see [Using PVS DRC Link](#).

- For [Batch DRC](#), see AEL functions for configuring and running a DRC job.
- For configuring PVS DRC in a PDK, see AEL functions for library configuration. For more information, see [DRC Library Configuration](#).

### Auto Center for DRC, LVS and LVL

- Auto Center option centers the highlighted error without changing the zoom factor.
- Auto Center is available for DRC (Design Rule Check), LVS (Layout versus Schematic) and LVL (Layout versus Layout).

### Assura DRC Link

- Increased the maximum number of errors from the Assura system default. The number of errors was previously limited to 1000.

### DRC Links

- Run mode setting (Local, Remote) is now saved with the other job settings.



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## Virtual Test Bench (VTB)

- From ADS 2021:
  - Verification Test Bench (VTB) is now called Virtual Test Bench (VTB).
  - To install files that are required for the VTB functionality along with the ADS installer, you need to download a separate VTB installer for both Windows and Linux and manually install the VTB.
  - If you have already installed ADS and find VTB functionality is missing, then you need to download and manually install the VTB.
  - If you want to uninstall, then you need to manually uninstall VTB separately for both Windows and Linux.

For more information, see [VTB documentation](#).

### Known Issues



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## Licensing

- ADS requires: a) the **version 2020.02** of the EEsof EDA licensing software, b) a minimum code-word version **2020.02 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 **2020.02**. ADS 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, ADS 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 \(For Administrators\)](#).

### Known Issues



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## Known Issues

### Design and Technology Management

- Using ADS 2020 with pycell studio 2018 (PyCell Studio Packages: Release O-2018.09) might prompt you an OA version mismatch warning message on the linux terminal. However, there is no impact on the iPDK flow in ADS.  
Linux terminal message:  
Requested minor API version '518', which is supported by OpenAccess build '22.50.030' is newer than the minor API version '514' of the shared library of OpenAccess build '22.50.043'.
- The Express Pcell plugin that comes with Virtuoso IC version 6.1.8 does not work with ADS 2020 due to an OpenAccess version mismatch, but the [Express Pcell plugin](#) will work with ADS 2020 Update 1.0 and 2.0.  
**Workarounds:**
  - When running ADS 2020, set the LD\_LIBRARY\_PATH environment variable path to point to the directory from IC version 6.1.7.
  - Upgrade to ADS 2020 Update 1.0
- The Express Pcell plugin that comes with older versions of Virtuoso IC version 6.1.7 may crash during a simulation with ADS 2020 Update 2.0 due to a third party incompatibility [but may work](#) with newer versions above IC version 6.17\_722 and up.
- AEL constants are protected and should not be modified in any DDS expressions. An AEL error will be issued in case an attempt to modify an [AEL constant](#) occurs.
- **Python Datalink**
  - When using Connection Expert 2019 connected to Lan Instruments, there may be error messages during `dl_visa_query()` and `dl_visa_write()`.
  - Exceed on Demand: Note that in some cases, EoD settings may need to be configured to properly display Spyder. Please contact your EoD support representative for additional guidance.



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### Design Editing

- Designs created using [Smart Mount for Multi-Technology](#) feature cannot be used to run an electrothermal simulation.



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## Design Guide

- Unable to unarchive HDMI design guide from the Schematic view (**DesignGuide > HDMI**).  
**Workarounds:**
  - Unarchive using the old ADS version.
  - HDMI design guide will open in case it is already unarchived.
- Simulating the "1\_Sim\_CA" design in the DDR4 CTB design guide prompts the netlist error.  
**Workaround:** Open the schematic design "PatternGen\_CA\_Continuous" and arrange the pin numbers in order.
- Simulating of schematics in the HDMI\_Link\_Simulation design guide prompt the netlist error.  
**Workaround:** Open the schematic design "HDMI\_Diff\_RX" and arrange the pin numbers order in order.

## Design Kits

- A design created using ADS2020 Non-Linear Demo Kit (NLD) and using NLD discontinuities like demo\_bendP, demo\_stepP, demo\_teeP, etc. will not work as expected in ADS 2021.  
**Workaround** – In ADS 2021, either update the design with the latest NLD i.e. NLD shipped along with ADS 2021; or continue to use the NLD that was shipped with ADS 2020.



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## Circuit Simulation

- **General**
  - When using GoldenGate in ADS 2020 Update 2.0, some of the library files of RFIC cockpit options are not getting loaded due to license incompatibility. It is recommended to use ADS 2020 Update 1 when using GoldenGate in ADS.  
For details on license compatibility, see [License Codeword Version Compatibility](#).
  - Simulation Manager may not work on Windows and throw exceptions for some designs.
  - ADS 2019 will not be compatible with Verilog-A files, which have been encrypted before ADS 2019. There is no change for non-encrypted Verilog-A files.
  - TMI models are supported for pure Hspice syntax only. The support of hybrid syntax (mixing Hspice and Spectre) is planned for a future release.
  - BSIMSOI models using TMI modeling is not supported yet. Classical BSIMSOI models are supported as before.
  - TMI Aging simulations are not supported
- **ElectroThermal**
  - In ADS, electro thermal simulation is assisted to automatically turn off the HBAHB and TAHB options for single tone HB. However, the electro thermal simulation for multi-tone HB needs a manual intervention to turn off the HBAHB and TAHB options for reporting voltage data.
  - You may not be able to start a Transient/Envelope Electro-Thermal (ETH) simulation only when the same testbench is open in the viewer of Transient/Envelope thermal results. You need to close the viewer before launching a Transient/Envelope ETH simulation.
  - The electrothermal simulation will not run on designs created using [Smart Mount for Multi-Technology](#) feature.

- Paths set while configuring the ETH controller may need to be updated when the workspace is moved across operating systems.
- On a fresh Linux machine, electrothermal simulation fails with the following error message:  
Heatwave returned an unknown error code 127.  
**Workaround:** The error could be due to missing packages, for example, **libpng12**. Verify your system meets the requirements using the `linux_sys_check.sh` script. For more information, see [Checking Installed RPM Files and the Operating System Version](#).
- If you get licensing errors while running thermal simulation, you may need the following workaround.  
**Workaround:** Rename the file `$HOME/.eesofrc`. For example, `$HOME/.eesofrc-orig`.
- Electrothermal does not support remote simulation, batch simulation, Monte Carlo, tuning, Optimization, and Measurement Equations. Also, you cannot sweep directly on the DC controller.
- All libraries referenced in a layout should use the same layout resolution, namely the OA database units (DBU) per user unit (UU).
- You cannot run both a transient and envelope simulation on the same design from one testbench.
- The calculation of power dissipation from passive components other than resistors may not be correct in harmonic balance simulations.
- Electrothermal does not support the transient or envelope simulation that is controlled by a ParamSweep.
- If you get "Maximum timestep reduced to half of shortest transmission line delay " warning, it can lead to transient simulation to not converge  
**Workaround:** Unselect "Limit timestep for Transmission Line" option on Time Setup tab of Tran component to get it work.
- On Linux, if you specify the THERMAL\_DIRECTORY variable in `eesof_lib.cfg` file using backward slash (`..\thermal`), the thermal simulation does not run properly.  
**Workaround:** Specify the THERMAL\_DIRECTORY variable using forward slash (`../thermal`) instead of backward slash.
- The ETH viewer does not support 4K displays. A few instances of text and icons may appear distorted.
- You receive an error message in substrate editor that you cannot use the same layer number more than once. You can safely ignore this error during thermal technology export.
- On a fresh Windows 10 system, Electrothermal simulation terminates with an error.  
**Workaround:** Install the following Microsoft Visual C++ runtime components:  
<http://www.microsoft.com/en-in/download/details.aspx?id=30679>  
<https://www.microsoft.com/en-in/download/details.aspx?id=5555>
- **DDR Design**
  - You receive an error message to check port numbering when performing simulation with SnP component for differential configuration.  
**Workaround:** Select the first option in Pin Configuration for the SnP component.



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## HSD Design

- **SerDes**

- You receive an error message when runtime libraries for some of the ADS example *ibs* files (for old AMI models) are unable to get installed automatically during the ADS install. The error appears even though the *ibs* file is supported on specific platform.

**Workaround:** Microsoft Visual C++ 2010 runtime library is required to run the *dll* files. Download the following library if it is not installed:

<https://www.microsoft.com/en-us/download/details.aspx?id=14632>

- **EM-SI/EM-PI**

- **SIPro/PIPro, Via Designer**

- On Windows 10 with Intel HD graphics, Via Designer may show an error message 'Failed to use the connection between ADS and Via Designer.' This has been isolated to the latest release of Intel HD Graphics drivers (23.xx.xx.xxxx).

**Workaround:** Downgrading graphics driver to the previous recommended driver resolves this issue (e.g., 22.20.16.4836, A05).

- DirectX 9 as graphics driver is no longer supported. DirectX 11 is thus used by default. Run "diagdx" to verify which DirectX version is supported on your system.

- **SIPro/PIPro**

- ADS 2020 is not compatible with the latest available Samsung component models released in June 2018. The support for the component models is planned to be added in an upcoming update release.
- Simulation failure when using components with S-parameter models or for which the model is defined using a lib/cel/view in case the Updating model does not require new simulation is not set. As a workaround, turn on the option. For PI-AC simulations, the options are turned on by default, for SIPro, this needs to be turned on explicitly.
- If you run SIPro/PIPro on a fresh machine with Suse 11 or Redhat 6 installed, you may encounter the critical error "EMPro exited unexpectedly during execution." This is related to the graphics driver software.

**Workaround:** Upgrade to the latest vendor-specific drivers and OpenGL libraries for the graphics card.

**Alternative workaround:** Run the following commands:

```
cd $HPEESOF_DIR/fem/2020.20/linux_x86_64/bin
./startempro --personality=sipi--driver=x11
```

Ignore any license related error messages that may show up on executing these commands. The driver setting is saved per personality for future sessions.

- With split domains on, there are no results available until simulation results are available from the last simulation, or even after the simulation.

- **PIPro-DC**

- The power graph is not correct when VRM's or Sinks are defined, starting from pin definitions. All the other result data is correct. This issue does not occur when VRMs and sinks are defined from component instances.



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## EM Simulation

### ▪ RFPPro

- The FEM and Momentum Generation 2 flows are state-of-the-art solvers but still evolving. In case it does not handle your design, switch back to Generation 1.
- Multi-technology designs cannot be analyzed with Momentum.  
**Workaround:** Use the FEM simulator
- Project load fails with the error 'OccDesign::getNet: key not found' when a layout shape has a multi-bit net name (e.g. 'd<7:0>' or 'a,c,net1').  
There is no workaround.
- With McAfee Endpoint Security (ENS) enabled, the Momentum surface current visualization hangs.  
**Workaround:** Disable the "Enable Adaptive Threat Protection" flag in McAfee ENS.

### ▪ RFPPro and 3D Viewer

- If you run the tool on a fresh machine with Suse 11 or Redhat 6 installed, you may encounter the critical error "EMPro exited unexpectedly during execution." This is related to the graphics driver software.  
**Recommended workaround:** Upgrade to the latest vendor-specific drivers and OpenGL libraries for the graphics card.  
**Alternative workaround 1:** On Linux, launch the tool and force it to use the X11 driver. On Windows, set the driver to 'msw'. This preference is saved for the current user and per personality. You can do that by executing following commands, e.g. in a shell on Linux:

```
cd $HPEESOF_DIR/fem/2021.10/linux_x86_64/bin
./startempro --personality=rfpro --driver=x11
./startempro --personality=3dview --driver=x11
```

Ignore any license related error messages that may show up on executing these commands. The driver setting is saved per personality for future sessions.

**Alternative workaround 2:** Set following environment variable **EMPRO\_SET\_SOFTWARE\_DRIVER\_AS\_DEFAULT=1**. This variable controls the default driver when no preference was set. On Linux, X11 is used. On Windows, MSW is used. You can clear all preferences as follows:

```
cd $HPEESOF_DIR/fem/2021.10/linux_x86_64/bin
./startempro --personality=rfpro --clear-preferences
./startempro --personality=3dview --clear-preferences
```

### ▪ EM Setup

- On a Virtual Windows 10 system with Microsoft Hyper-V Video display driver, the 3D EM Preview with EM Setup Preprocessing may bring up a dialog with a Hoops error, and, after suppressing the dialog, it opens up blank.  
There is no workaround.

### ▪ Distributed simulations

- The example implementation of the sitecluster command for LSF clusters may lead to failing simulations if the path or number of threads is too large.  
**Workaround:** See the [workaround details](#) in the sitecluster documentation.

## Import/Export

- Exporting with MentorDA link does not work with the latest Mentor Graphics software Version VX2.6.



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## Power Electronics

- PowerMOS\_SiC power devices operate under a very wide range of voltage and current slew rates and it is a challenge to create a model that converges under all conditions – especially conditions that depend upon what components are connected externally to the power device in the circuit schematic. Please contact technical support if you encounter such an issue when attempting to use this model.
- If you run PEPro on a new machine with Suse 11 or Redhat 6 installed, you may encounter the critical error "EMPro exited unexpectedly during execution." This is related to the graphics driver software.

**Workaround:** Upgrade to the latest vendor specific drivers and opengl libraries for the graphics card.

Or

Run the following commands:

```
cd $HPEESOF_DIR/fem/2020.20/linux_x86_64/bin
./startempro --personality=sipi--driver=x11
```

You can ignore any license related error messages. The driver setting is saved per personality for future sessions.



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## Installation

- While installing a new version of ADS, if you see "Previous version detected" error even after you have already run the uninstaller for that version of ADS, you may need to manually uninstall ADS before installation of the new ADS. To manually uninstall ADS, perform the following steps.
  - a. Exit the current ADS installation session if it is running
  - b. Remove or rename the file **.com.zerog.registry.xml** under the folder **C:\Program Files\Zero G Registry** . Both the folder and the file are by default hidden, so you may need to change the folder viewing setting to show hidden files and folders, do so via the **Advanced settings** of the **View** tab in the Windows **Folder Options** dialog box.
  - c. Remove the ADS installation directory through the Windows Explorer.
- After performing the above steps, you can re-start the ADS installer.



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## Licensing

- You may observe additional License Usage when Client Machine reconnects to network after intermittent disruption.

**Workaround:** In case of network interruption on the client machine, to reclaim the inactive licenses, a TIMEOUT can be set using the TIMEOUTALL feature in options file (minimum time period of 15 minutes). The inactive license may stay checked out for this period of time

- 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 EEs of 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

- You may observe issue in recognizing more than one FLEXID on Linux platform with the 2020.02 license tools.
 

**Workaround:** Consolidate your licenses to one FLEXID and configure the same.
- 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 Imgrd with a long command line and may get stuck in a loop.
 

**Workaround:**

  - 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.
  - Try to use a shorter path to place license files.
  - If #1 and/or #2 does not help, start the license server (*Imgrd.exe*) from the command line (e.g. *Imgrd.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 EEs of releases.
 

**Workaround:** Install and use dongle drivers as needed. If you need to run the most recent EEs of 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 EEs of License setup are writing server logs at different locations. However, the EEs of 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 1<sup>st</sup> August, 2014 on your system prior to installing an EESof product released after 1<sup>st</sup> 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 1<sup>st</sup> 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 ADS releases together, set `ADS_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 `ADS_LICENSE_FILE`.  
**Workaround:** You can use `ADS_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*, *aglmgr.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 a 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_LICENSESE_FILE` and the value will be the path to your local license file or the port@host setting for your site.

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## Third Party Applications

- Spyder application menu bar becomes inactive when the window is maximized using **View > Full Screen** or by pressing F11 (shortcut key to maximize the screen).  
**Workaround:** Press F11 again to make it the default screen. The menu bar is now active and works fine.

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## Virtual Test Bench

- When using VTB on Virtual Machine (VM), if SystemVue crashes then ensure to restart your system.
- To use VTB, ensure ADS is installed in a path that has only ASCII characters.
- Backward compatibility  
In ADS, the customized VTB can have a backward compatibility issue.  
**Workaround:** To fix this issue, use one of the following methods:
  - a. **Open** and **Save** the custom VTB in SystemVue2020Update1. Now, you can use the custom VTB in ADS.
  - b. A built-in workspace conversion tool is provided in the installer. You can convert the custom workspace (.wsv) to the newer SystemVue version. Use the following steps to convert the workspaces:
    - Open Command Prompt in the **Administrator** mode.
    - Browse the location of the old workspace. For example, C:\ADS\_VTB.
    - Run the following command parameter.

```
C:
\ADS_VTB><SystemVueVTB_Installation_Dir>\bin\WorkspaceConversionToolManaged.exe" VTB_Examples.wsv VTB_examples_new.wsv
```

Where,

1. <SystemVueVTB\_Installation\_Dir> is the location where SystemVue VTB package is installed. For example, C:\Program Files\Keysight\SystemVueVTB2020Update1.
  2. **VTB\_Examples.wsv** is old SystemVue file and **VTB\_examples\_new.wsv** is converted file.
- c. The following successful message is displayed.  
Created: **VTB\_example\_new.wsv**
  - d. You can now use the **VTB\_examples\_new.wsv** workspace in ADS.

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## Examples - Known Issues

- Examples under <ADS Install Directory>\examples \Instrument\_links folder are not getting opened on Linux where as they are opening fine on Windows.  
**Workaround:** Rename the 'Instrument\_links' folder to 'Instrument\_Links', if you have write permission to the <ADS Install Location>\examples folder. In case you do not have the write permission then proceed with manual unarchive process (**File > Unarchive** from the ADS Main window) pointing to the Example workspace.
- Example search might not work and prompt you the "Database is locked" error when ADS installation is on NAS.  
**Workaround:** Restart the *nfslock* service on client. In case the problem still persists, reboot the client to unlock the database.
- Unable to compile Pin Diode Model using Visual Studio 2012 on Windows 7 64-bit platform.  
**Workaround:** Delete the contents of the directory *examples\RF\_Microwave\UserCompiledModel\_wrk\userCompiledModel\lib.win32\_64* before using UCMs.
- An error occurs while running a custom VTB.  
**Workaround:** Download and run a custom VTB from the following location: <ADS Install Location>\SystemVue\2016.08\win32\_64\VTB.



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## Documentation

- On Windows, Printing directly from installed help generates non-readable output.  
**Workaround:** Use PDF version of the document for printing purpose.
- From ADS 2016.01 onwards, in ADS 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 ADS 20xx (or the installed version) Help, Click **File > 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 a one-time setting for a particular release of a product.
- Unable to open online help, any external link, or Embedded Survey link in Linux on Mozilla Firefox browser.  
**Workaround:** Use Mozilla Firefox version 39 or above or keep the Mozilla Firefox window open and then try to open online help.
- While using the installed ADS 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

- ADS installed help search does not support [] or {} or any other text using these combinations.
- On Linux, Konqueror web-browser does not display the online help properly. It may not display help pages at all or may display them broken and with errors.  
**Workaround:** Use Mozilla Firefox to view the online help.



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