PathWave Advanced Design System

Advanced Design System 2020 Update 2.2 Release Notes

KEYSIGHT TECHNOLOGIES

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ADS 2020 Update 2.2 Release Notes

Release: May 19, 2020

ADS 2020 Update 2.2 (minor update release) is a cumulative minor update release installed on ADS 2020 Update 2.0 (base release). You can upgrade your existing ADS installation (ADS 2020 Update 2.0) to ADS 2020 Update 2.2 without uninstalling any previous minor updates (if available any).

Version

512.update2.2

Following table lists the application version information:

	Linux	***Windows***
Design Environment	512.update2.2 May 14 2020 (64-bit)	512.update2.2 May 13 2020 (64-bit)
Data Display Server	512.update2.2 May 14 2020 (64-bit)	512.update2.2 May 13 2020 (64-bit)
Momentum MomEngine	2020.20.064 (*) built: Feb 13 2020	2020.20.064 (*) built: Feb 13 2020
FEM engine	372.200 2020-05-03	372.200 2020-05-03
hpeesofsess	512.update2.0 Feb 29 2020 (64-bit)	512.update2.0 Feb 27 2020 (64-bit)
hpeesofsim	512.update2.2 May 14 2020, MINT version 5	512.update2.2 May 13 2020, MINT version 5
	(64-bit linux built: Thu May 14, 2020 08:11:22 +0000)	(64-bit windows built: Wed May 13, 2020 12:12:06 +0000)

Platform Support

- **Supported Platforms**: Windows and Linux 64-bit.

Issues Addressed

Circuit Simulation

- General
  - Fixed the DC OP parameter names issue in UTSOI 2.20 and 2.30 model.
  - Implemented HiSIM_HV Version 2.2.
  - Implemented TMEMOD 1.3 for BSIMBULK 106.2.
  - BatchSim with separate processes & MergeDatasets=no & RemoveDatasets=no does *not* produce separate datasets

HSD Design

- DDR/Memory
  - Fixed the Netlister error on CK DQS signals in certain EBD file.
  - Model Selector is now properly saved for EBD file.
  - VOL simulation: Improved the display of multiple error messages.
  - ADS co-simulation with a newly released version 11.0 of VPI Design Suite works fine when Python 2.7 environment is used. However, it fails when its default environment, Python 3.7 is used.
    Workaround: Create and select the Python 2.7 environment. For details how to change the Python environment, see VPI DS documentation.

Data Display

- Fixed the DDS crash when ADS logo is hidden from the Items options.
- Fixed the crash when Archiving a workspace with "Referenced libraries and files" option selected and clicking the Select button.

Design Editing

- Flatten for 1 level hierarchy now works fine with Planes.
- Constraint Manager now opens with the first valid Via rule, even if the *tech.subst* file is missing,
- Fixed an issue with setting HTTPS_PROXY and HTTP_PROXY environment variables on Windows.

Design Kits

- Fixed the warning message popped up for demo_ind_dc component.
- Fixed the parameter "l" of demo_tlineP & parameter "l" & "w" of demo_border component to 0.01 um.

FEM

- Fixed an issue with SMD marking layers.

ADS 2020 Update 2.1 Release Notes

Release: April 18, 2020

ADS 2020 Update 2.1 (minor update release) is a cumulative minor update release installed on ADS 2020 Update 2.0 (base release). You can upgrade your existing ADS installation (ADS 2020 Update 2.0) to ADS 2020 Update 2.1 without uninstalling any previous minor updates (if available any).

Version

512.update2.1

Following table lists the application version information:

	Linux	Windows
Design Environment	512.update2.1 Apr 8 2020 (64-bit)	512.update2.1 Apr 3 2020 (64-bit)
Data Display Server	512.update2.1 Apr 8 2020 (64-bit)	512.update2.1 Apr 8 2020 (64-bit)
hpeesofsim	512.update2.1 Apr 8 2020, MINT version 5	512.update2.1 Apr 7 2020, MINT version 5
	(64-bit linux built: Wed Apr 08, 2020 03:35:12 +0000)	(64-bit windows built: Tue Apr 07, 2020 07:48:30 +0000)
hpeesofsess	512.update2.0 Feb 29 2020 (64-bit)	512.update2.0 Feb 27 2020 (64-bit)
Momentum MomEngine	2020.20.064 (*) built: Feb 13 2020	2020.20.064 (*) built: Feb 13 2020
FEM engine	372.100 2020-04-13	372.100 2020-04-13

Platform Support

- **Supported Platforms**: Windows and Linux 64-bit.

Issues Addressed

ADS 2020 Update 2.1 addresses issues related to Circuit Simulation, Data Display, Design and Technology Management, Design Editing, ElectroThermal, and EM Simulation.

Circuit Simulation

- General
  - Fixed the issue to overwrite xx_a.ds from EM re-sim if xx_s.ds is used in SnP in an open circuit.
  - Fixed the fail of outer second parameter sweeps in envelope simulation.
  - Fixed the issue on simulation getting terminated with an error in Fast Envelope level 5 simulation.
- Electrothermal
  - Simulation is terminated with error when try to simulate in fast envelope level 5.

HSD Design

- DDR/Memory
  - Improved Power Aware simulation for flexible VCC/Ground Bounce analysis
  - Improved multiple formats in delay field in DDR_Memory/DDR Controller, such as -40 ps or 3.5e-1 ns.
  - Improved simulation error message for the DDR_PCB component using "SIPro Generated Cell" option.
  - Improved the mask placement algorithm to be at the widest eye opening.
  - Improved the long warning messages by adding "Details..." button
  - Improved Memory_Probe usability by Hiding or Graying out the unsupported measurements based on simulation mode and signal type.
  - Fixed mask error on monotonic waveforms.
  - Fixed the simulation error for DQS and CK signals when a regular ibis model and EQ/Jitter setup are used during DDR5 simulation.
  - Fixed the Bit-by-bit simulation crash on Linux.
  - Fixed lower case 'p' in SnP port names
  - Fixed the issue seen when opening an IBIS file due to an undefined string variable.
  - Fixed the Minidump: crash in the ddr ConnectorDialog.
  - Fixed the Minidump: crash in set_net_names_in_term_net_map when creating ddr connection hover text.
  - The clock level in Memory Designer is corrected for Data Display and compliance application.
- SerDes
  - VOL simulation: Py3 and Py2 compatibility.
  - Added parameter description in VOL component dialog box.
  - Improved selection of the VPI product version while performing VOL simulation.
  - VOL component: Help ID is removed in the dialog related to the error message "the .vtmu project does not exist".
  - Improved the error message for the VOL component where the VPI label name is different from the parameter name.
  - VOL component: The schematic gets updated when you try to edit the instance name from the Edit Instance Parameter dialog box.

Data Display

- Improved plot multi-editing auto-scaling.
- Improved plot multi-editing range updating.
- Added help for multi-editing plot scaling.
- Expression Manager: Fixed change dataset for traces.
- Expression Manager: Fixed keyboard shortcuts.

- Fixed potential crashes archiving a workspace for data and data-display files.

Design and Tech Management

- Archive - Fixed potential crash arching data files.
- Improved the Config View window performance.
- Fixed opening Help from Design Kit Components.

Design Editing

- Fixed the issue where pcell component gets corrupted after opening and closing unknown number of times.
- Fixed the crash while inserting Bondwire.

EM Simulation

- RFPro
  - Fix to preserve the port pins, feedtype and reference impedance as defined on the Layout view.
  - Various Far Field visualization issues have been addressed.
    - Not addressed is the popup of an 'Unexpected Condition' dialog in case you rerun a simulation without unloading the far field visualization. You can safely dismiss this dialog.
    - The 'Circuit Excitation' dataset must contain data at all visualization frequencies to be valid.
  - Port impedance line orientation issue has been fixed in the FEM Generation 2 flow. This caused a 180 deg phase shift on the S-parameters.
  - Fixed an issue where the launch from Synopsys Custom Compiler fails as it reports empty fields.
  - Added support for Virtuoso Layout Mosaic feature.
- Via Designer
  - An FEM License is required for Advanced Via Designer features. Advanced features such as micro-vias do no longer require a FEM license.

Examples and DesignGuide

- Design Guide: Fixed the HDMI design guide unarchive issue.
- Example: EMPro_ADS_handson example now simulates with RFPro.

Power Electronics

- Fixed an issue in circuit excitation that affects Radiated EMI results.

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