Notices

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1400 Fountaingrove Pkwy., Santa Rosa, CA 95403-1738, United States

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## ADS 2016.01 HF2 Release Notes

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## ADS 2016.01 HF1 Release Notes

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## Getting Started with ADS

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NOTE: ADS 2016 Update X.y is a cumulative release, which also includes issues addressed in the prior ADS 2016 Update and Hotfix releases.
ADS 2016 Update 1.4 Release Notes (Re-packaged for Linux Users Only)

NOTE The ADS 2016 Update 1.4 (Re-packaged) release is only for Linux users using Allegro Flow.

Release: July 21, 2017

Version
450.update1.4 (Linux Only)

Issue Addressed
- Fixed the Linux version of the Update 1.4 Allegro DFI code to make it equivalent to the Windows version.

NOTE It is recommended to re-install ADS 2016 shipped version and the latest ADS 2016 Update 1.4.
ADS 2016 Update 1.4 Release Notes

Release: April 26, 2017

Version

450.update1.4

Platform Support

- Supported Platforms: Windows and Linux only.

Enhancements

ADS 2016 Update 1.4 includes enhancements in ADFI, Circuit Simulation and Momentum.

ADS Design Flow Integration (ADFI)

- Fixed the issue where automatic pin number is prefixed in the pin name when pin name conflicts were encountered.
- Customized the SIP imported stack up.
- Fixed the issue where names between SIP and ADS layout are not the same.

Circuit Simulation

- Added the thermal time constant simulation mode "control __debug_eth_logt=1" that enables you to monitor how long it takes for a circuit to reach a steady temperature state.
- Electrothermal library eesof_lib.cfg includes THERMAL_DIRECTORY variable it now refers to an absolute path.
- Added support for PSP103.4.
- Added support for BSIMIMG version 102.8.

Momentum

- Substrate only calculation in Momentum Virtuoso is now consistent with ADS.

Issues Addressed

ADS 2016 Update 1.4 addresses issues related to ADFI, Circuit Simulation, Data Display, IC Design Flow, Installation, Momentum, and Platform.

ADS Design Flow Integration (ADFI)

- Fixed the ADFI import issue.
Circuit Simulation
- Fixed the issue where ports can be automatically added for any symbol.
- "Display port name in SnP component" is now supported on CST generated Touchstone files.
- Electrothermal (ETH) and S-Parameter swept analysis now saves all S(f) data.
- Fixed the Electrothermal (ETH) crash where there are two SnP blocks and checks the "Reduce large SnP for convolution analysis" using the Options. ReduceSPort=yes.
- Fixed the bsimsoi diode current value.
- BSIMIMG 102.7 with selfheating flag enabled now generates proper results.
- Fixed the Simulation Manager issue where distributed simulations fail or did not start when requirements options were entered.

Data Display
- Fixed the issue where ADX to ds conversion failed for ADX file created with GoldenGate 2017.

IC Design Flow
- Imported Pspice netlist now generates improved simulation results.
- Added a progress bar when LVS is run. The progress bar can be cancelled anytime.
- Reduced the error detection time for instance name option.

Installation
- PDF file creation default color mode is Black and White

Momentum
- Fixed the issue where the user defined via simplification skill functionality required a save
  - Allowing simplification by individual derived layers in the Momentum-Virtuoso UI.
- A new Momentum component is added to resolve the Unphysical results with in Momentum simulation on TSMC 16FF.
  - TSMC 16nm ltd file can now be pre-computed in momentum MW mode.

Platform
- "Quickstart" dialog box does not appear now when invoking DDS in GG environment.
- Custom Vias should not use PSNs to work properly inside any other pcell.
ADS 2016 Update 1.3 Release Notes

Release: January 20, 2017

Version
450.update1.3

Platform Support
- Supported Platforms: Windows and Linux only.

Enhancements
ADS 2016 Update 1.3 includes enhancements in AEL, and Circuit Simulation.

AEL
- Added the new \texttt{det()} function for NDF stability analysis.

Circuit Simulation
- Added support for UTSOI 2.20.

Issues Addressed
ADS 2016 Update 1.3 addresses issues related to ADFI, Artwork Translators, Circuit Simulation, Dynamic Link, IC Design Flow, EM, Momentum, PCB Links, Platform, SIPro/PIPro, Spice Models, and VerilogA.

ADS Design Flow Integration (ADFI)
- Fixed an issue with the highest pin number lookup for flip chip die pins in an MCM design.
- Fixed an issue were the Tools menu disappeared in Cadence SiP 17.2 with ADS 2016.01 Update 1.

Artwork Translators
- Fixed a problem with Gerber, DXF, and ODB++ Export that caused some non-pcell instances to be incorrectly rotated.

Circuit Simulation
- Fixed the Monte Carlo hang issue due to mismatch.
- Simulation results for two XnP components in same schematic are now correct.
- Fixed the HSPICE mos level 72 crash.
- Fixed the "Unknown parameter type PinNumber" error while performing Channel Simulation.
- Fixed the incorrect DQS aggressor effect in Bus Simulator.
- Fixed the greying out issue of Series Model tab with certain IBIS_S_I models.
- Fixed the "Insufficient memory available error" while performing HB and Batch simulation.

Dynamic Link
- Dangling mpsProxySlave_x86 process now cleans up by dynamic link.

IC Design Flow
- Device Recognition: LVS works fine with the MMIC_Test_LVS_DemoKit_wrk design.
- Device Recognition: LVS now runs successfully on ADS 2016.01 HF3 test cases.

EM
- An EM Model data caching issue has been fixed that lead to incorrect circuit simulation results
- Fixed an AEL error during the generating of a schematic from the Package Model Extraction addon

Momentum
- Improved Green function computation for vertical currents on short via cells.
- Fixed an issue with the processing of pins when healing the layout.
- Fixed a case where a via touches but doesn't overlap with a thick strip.
- Improved the TML source model for slot antennas.

PCB Links
- BRD Import now prompts the user to override WYSIWYG connectivity mode to ensure correct import of net information.
- BRD Import now checks for illegal characters in component term names.

Platform
- A layout will now reflect edits to a parameterized sub-circuit that is also a layer-mapped pcell, after popping out.
- Added support of special characters (@#&+-$%) in a multi-instance component name. For example, my-Resistor<3:0>.
- Fixed problems with stale cellview references in emSetup views, which could bloat the hierarchy during a Copy Cell command.

Signal Integrity/Power Integrity (SIPr/PIPr)
- Murata part name is now assigned correctly when subcircuit is generated from SIPr.

Spice Models
- The "Use auto generated values determined at run time" option now functions properly for BBS Spice Model Generator.

VerilogA
- Fixed the VerilogA crash that results in successful ETH simulation.
ADS 2016 Update 1.2 Release Notes

Release: November 10, 2016

Version
450.Update1.2

Platform Support
- Supported Platforms: Windows and Linux only.

Issues Addressed
ADS 2016 Update 1.2 addresses issue related to IC Design Flow.

IC Design Flow
- Assura DRC - The DRC Results Viewer now displays all errors listed in the cellname.err file.
  An exact shape for DRC error highlighting may not be available in some cases. Where the shape is not available in the Assura DRC output, a shape is automatically generated based on the error x1, y1 coordinates. As a result, the total error shapes in the viewer may be slightly higher than the error count in the .err file.
ADS 2016.01 Update1.1 Release Notes

*Release: October 25, 2016*

**Version**

450.Update1.1

**Platform Support**

- Supported Platforms: Windows and Linux only.

**Enhancements**

ADS 2016 Update1.1 includes enhancements in Circuit Simulation and Platform.

**Circuit Simulation**

- IBIS results are now correlating with HSPICE results.
- Added support for BSIMSOI 4.5.0.

**Platform**

ADS 2016.01 Update1.1 includes a new getting started experience that helps you evaluate ADS capabilities at ease. When you start ADS a dialog box is displayed that prompts you to open ADS as a new or advanced user.

- New to ADS - (ADS Quick Start mode) ADS Quick Start enables the first-time ADS users to discover the basics of ADS. It enables you to:
  - Quickly start placing components on a schematic.
  - Wire up a circuit and set up a simulation within minutes.
  - Easily plot and view the results to analyze.
- Familiar with ADS - Enables you to explore all the powerful and advance ADS capabilities.

For more information, refer to [Getting Started with ADS](#).

**Getting Started with ADS**

To start Advanced Design System (ADS), click Start > Advanced Design System 201x.xx from the taskbar.

Starting in ADS 2016 Update 1.1 and later the getting starting experience:

- For existing ADS users, ADS starts normally.
For a new ADS user, the Welcome to the Advanced Design System screen is displayed with two options:

- **New to ADS** - Starts ADS Quick Start, which enables new users to discover the basics of ADS quickly.
- **Familiar with ADS** - Starts ADS in normal mode and enables you to explore all the powerful and advanced ADS capabilities.

**Welcome to the Advanced Design System (ADS)**

Build your first circuit and simulate in minutes.

Explore the more powerful capabilities in ADS.

ADS Quick Start Mode Highlights

- **First-time User Detection**: ADS Quick Start mode is enabled by default for the first time ADS users. It can be enabled or disabled in the ADS (Main) preferences.
- **Simplified Experience**: Skips all the startup screens and wizards of the standard mode.
- **Overlay Tips**: Provides quick steps for getting started effectively with circuit drawing, setting up simulation, and plotting/viewing results.
- **Missing Step Detection**: Displays messages when critical steps have been missed such as placing a Simulation Controller or in some case a Source.

Tips to Invoke ADS Quick Start Mode
When ADS starts, the Welcome to the Advanced Design System screen is presented. To turn off the screen:
- Check the “Don’t show this again.” on the lower left corner of the screen.
- From ADS Main window, click Options > Preferences and uncheck the “Enable Quickstart” checkbox.

For Existing User
ADS starts normally. To enable ADS Quick Start:
- Type ads -quickstart from the command prompt.
- Create a new ADS shortcut that calls ads -quickstart.
- From ADS (Main) window, click Options > Preferences and check the "Enable Quickstart" checkbox.

Issues Addressed
The ADS 2016.01 Update1.1 addresses issues related to Circuit Simulation, Momentum, Layout, Platform, and SIPro/PIPro.

Circuit Simulation
- Improved the Transient simulation speed with Power aware IBIS model.
- Fixed the issue where incorrect thermal results were created due to wrong pkg.ini file.

Momentum
- The command deGenerateLookalikeSymbol() now generates a layout look-a-like symbol without errors.
- Improved the iRCX import options to import advanced tech nodes (below 28nm).

Platform
- Changing a single sub-circuit instance to an iterated instance no longer causes a crash.
- Edit > Component > Create Hierarchy now creates the correct number of pins for the generated sub-circuit.
- Layout artwork macros that use an add path command are no longer affected by the user's "End style" setting for path entry.
- Fixed schematic pcell netlisting problem for iPDK / interoperable PDKs.

Signal Integrity/Power Integrity (SIPro/PIPro)
- Power Integrity (PIPro) now displays EM field plot results after simulation.
- Fixed the Package Extraction issue when put both PDN and Signal nets in Signal Integrity (SIPro).
- Fixed the issue where the connected power nets becomes OPEN, when Power nets, GND nets and Signal nets are included for the simulation.
ADS 2016.01 Update1 Release Notes

_Release: September 9, 2016_

Version

450.Update1

Platform Support

- Supported Platforms: Windows and Linux only.

Enhancements

ADS 2016 Update1 is a significant technology update for both SIPro/PIPro (new features released in ADS 2016). This update also includes enhancements in Channel Simulation, FEM, IC Design Flow, and Momentum.

Signal Integrity/Power Integrity (SIPro/PIPro)

- Improved the mesh and simulation accuracy for SIPro/PIPro.
  - New Mesh Domain Optimization (MDO) technology for SIPro/PIPro.
    - Significant speed and memory usage improvements comparing ADS 2016 shipping release to Update 1: up to 5x-20x improvement in simulation time and memory for SIPro, up to 2x improvement in simulation time and memory for PI-AC analysis, dependent on board size
    - Continual accuracy improvements for SIPro.
      - Improved Via Modeling under default settings
      - Non-functional Via pads now removed by default (reducing capacitance) for SIPro and PIPro-AC
  - Improved mesh robustness for both SIPro and PIPro.
  - Automated assignment of component part values, taken from component name.
  - New ‘Performance Visualization Mode’ – improves user experience when remotely accessing SIPro/PIPro across a network.

For more information, see SIPro and PIPro documentation.

Known Issues

- In case of mesh failure or simulating being slow or hanging during the mesh step in SIPro, consider setting a customer mesh resolution. For example, for layouts in mils, change the Mesh Resolution to 0.1 mil.
- In case the field visualization in PIPro-AC does indicates that no fields are available, though the option to save the fields are set, close and re-open the PIPro.

- In case open or other unexpected behavior is seen for lines where a through connection is expected, consider adding more nets (e.g. power or ground) in the simulation.

Channel Simulation

- IBIS-AMI Channel simulation can now output the pulse response (Single-Bit response) for the channel, Tx+Channel, and Tx+Channel+Rx. This helps the user to understand Inter-Symbol-Interference in the channel and analyze/optimize the EQ settings that affect the responses.

FEM

- FEM dataset now contains port names after an FEM simulation in the SnP component.

Known Issues

- When using a 3D component in layout, which has a waveguide port mode, avoid using the “Auto-extend to simulation domain boundary” option. The size of the waveguide port should be defined in the definition of the 3D component and not be dependent on where the 3D component is placed in a layout.

- Far field pattern calculations on FEM simulation performed in Update1 can only generated using the Update1 release and more recent versions, but not in older versions.

IC Design Flow

- Fixed the deactivate and short Probe components issue.

Momentum

- The substrate generation performance has been improved by exploiting multi-threading

- Overlap extraction now considers lateral overlap what improves accuracy for capacitor simulations (e.g. momcaps) with default mesh settings.

- The "emExtracted" view generation for an EM cosimulation now supports bus pins

Issues Addressed

The ADS 2016.01 Update1 addresses issues related to ADFI, Artwork Translators, Circuit Simulation, FEM, IC Design Flow, Installation, Momentum, PCB Links, Platform, and Shared Libraries.
ADS Design Flow Integration (ADFI)
- While performing ADFI export the Component export selection updates are now properly processed when the ports are already created.
- Fixed the ADFI menu load issues in Allegro 17.2.
- ADFI export setup now processes the (exportPads "all") signal settings.

Artwork Translators
- Gerber Export now properly converts curved traces.
- Further improvements to Gerber Export to handle self-intersecting paths, traces and polygons.

Circuit Simulation
- Added the Add Net Names from File option on the HSD toolbar.
- HB simulation results are now consistent on different machines for a corner case.
- Fixed the crash when simulating netlist with mextram (BJT504t) model.
- Spectre compatibility can now handle hisim 2.70.
- ADS and GG/Spectre results are compatible when using the BSIM-SOI model.
- UTSOI 2.11 now displays correct results as function of temperature.

FEM
- Fixed the FEM simulation results issue (on Windows 10) when the "modal TML port Solver" option is checked.
- FEM far field calculation no longer prompts with the "Using legacy field file format" warning message.
- FEM results data set contains ports names
- Directivity and Power radiated values change consistently when selected frequency is changed
- Fixed an error message in the Farfield calculation log after performing FEM Simulation.
- Fixed issue with wrong reference impedances when AFS is used with deembedding, which resulted in wrong simulation results
- Fixed the crash while saving an image in 3D EM Preview/Visualization/farfield.

IC Design Flow
- Fixed the mailLVS error where there is no schematic in the cell with the layout and results are retrieved from the FTP server.
- Fixed the deactivate and short Probe components issue.
- Added support for PSpice and LTSpice netlist components.

Installation
- Fixed the missing shared library ($HPEESOF_DIR/lib/linux_x86_64/libcrypto.so.6) issue where installation was causing python hashlib failures.

Momentum
- Several fixes and enhancements in the Package RLCK Model Extraction addon
- Fixed an EM Model spectre netlisting issue in case of a complex port setup
- Fixed an iRCX import issue in the Momentum Virtuoso Substrate Editor for the CLN16FF+ process

PCB Links
- ABL Import now converts curved traces to faceted traces before adding them to ADS layout.
- Added support for instance pin lists to ABL Import and Export.

Platform
- Performing an Undo operation after flattening now does not display any warning message about pcell evaluation and oaObject.
- ADS Layout now honors the "Display Box For Objects Smaller Than Minimum Object Size" and "Maximum Hierarchical Depth At Which To Draw Box" preference settings.
- Performance is greatly improved when updating the Info docking window for large designs that include array instances.
- Improved the Edit/Component/Flatten/Flatten All To Shapes commands on large designs that include array instances.

Shared Libraries
- Fixed the multiple Printer option visibility issue in Print dialog box on Linux.

Signal Integrity/Power Integrity (SIPro/PIPro)
- In vendor DK is not available, a generic sub circuit with LCR models is used to generate the schematic
- Several fixes in meshing in SIPro/PIPro improving robustness and consistency between simulations on different platforms or design variations like cookie-cut versus full board
- Root cause of non-physical S-parameter warnings removed in SIPro
- Improved behavior for low frequencies: automatic frequency plan option uses 20 kHz as the lowest calculated frequency
ADS 2016.01 HF3 Release Notes

Release: July 13, 2016

Version
450.hf3

Platform Support
- Supported Platforms: Windows and Linux only.

Issues Addressed
This hotfix addresses issues related to Artwork Translators, Circuit Simulation, FEM, Input Output, Examples, IC Design Flow, Momentum, Platform, Shared Libraries, and SIPro/PIPro.

Artwork Translators
- ODB++ Import generates shorter component names for cases where the standard generated component names exceed the Windows character limit.
- Gerber Export now outputs self-intersecting polygons in a non-intersecting way that can be handled by external Gerber importers.

Circuit Simulation
- Microstrip TFR can now be connected to other microstrip conductors.
- Fixed the issue on sweeping some parameters with Mix and match ChannelSim.
- Updated the extrapolation algorithm in DynaFET.
- Fixed the Check/View S-params checker issue on loading a dataset from data folder (RHEL specific only).
- MATLAB output component in schematic now generates valid matlab (.mat) file.
- Fixed the bit sequence sweep issue of the Tx_SingleEnded source.
- A problem on netlist generation of some ETH workspaces is resolved.
- Updated the gemini copyright information.
- Simulation Manager now pick jobs from the queue selected via GUI.
- Fixed the performance bottleneck issue while merging data using Simulation Manager.

Data File IO
- MATLAB Output component in schematic now generates valid matlab (.mat) file.
EM
- Fixed the issue with two libraries with same design but different resolution.

Examples
- Updated the 'PDE_userv3mnu2.ael' file for hotkey customization with existing file under <ADS installation directory>/examples/Training/Layout/.

FEM
- Change in Number_of_sides from schematic is now getting reflected in EM 3D view for bondwire.
- EM circuit excitation results of Radiation Efficiency value are now fixed and correct.
  - Updated the definition of “Input power” within the Antenna Parameters of Far Field Viewer - Power that passes through the N-port device and is dissipated in loads that connect to the device is no longer included in the accounting of “Input power and so, the reported “Input power” will be smaller than the value reported in previous releases. This also means that the reported “Gain” and “Radiation efficiency” will be larger than in previous releases (by definition).
- Fixed the 3D Preview and FEM simulations failure issues with designs that worked well in ADS 2014.01.
- The fast 3D Viewer now displays bondwire for converted EBond from Sbond with default profile.
- Fixed the double-license checkout issue.

IC Design Flow
- Components with Physical Nets: Nets without terms are now checked.
- Fixed the issue where LVS was not displaying errors with Parameter Mismatch.

Platform
- Design Synchronization now reflects changes made to a subnetwork variable that affect the subnetwork's artwork.
- "Drag and Move" command preference settings now work correctly.
- Netlisting now properly handles pPar expressions in CDF-based component parameters that are radio-typed.
Shared Libraries

- Zoom in/Zoom out on Linux now moves the cursor to the screen center for Schematic, Layout, or DDS windows. When using Linux through a remote viewer other than VNC, only the view will warp to the center. When using Linux with VNC, neither the cursor nor the view will warp to center by default; to warp the view, set the environment variable WARP_VIEW_VIRTUALLY=TRUE.

Signal Integrity/Power Integrity (SIPro/PIPro)

- Impedance plot now takes much less time to open.
- Fixed the syntax error in proj.ltd when 'Smooth' surface roughness is used.
- Change port order hotkeys now works in SIPro setup.
- In SIPro the default value for Power Nets’ Reference Impedance is set to 0.1 ohm.
- empro.core.ApplicationPreferences.getPreference ("SiPro/GenerateSchematic/xxx", 50.0) now returns floating point value that fixes the schematic generation error message in the S parameter stos.
- Removed the LD_PRELOAD overwrite in EMPro/SIPro or PIPro startup script on Linux.
- Updated the murata model DB (inductor) in SIPro.
- Improved the E-field and H-field excitation display in PIPro.

Enhancements

This hotfix also includes enhancements in Circuit Simulation and EM.

Circuit Simulation

- Updated the extrapolation algorithm in DynaFET.
- Measurement equations are now available in the simulation output plans when in "name=value" and "Standard" parameter entry modes.
- Pulse responses can now be saved in the dataset, aligned on the basis of main cursor, and can be displayed in the UI scale.
- Added support for HiSIM_HV version 2.3.1.

EM

- Eliminated the multiple copies of the EM results data when doing co-simulation and circuit-driven visualizations.
ADS 2016.01 HF2 Release Notes

*Release: May 9, 2016*

**Version**

450.hf2

**Platform Support**

- Supported Platforms: Windows and Linux only

**Issues Addressed**

This hotfix addresses issues related to Artwork Translators, Circuit Simulation, Examples, IC Design Flow, EM, Platform, SIPro/PIPro, VerilogA, and Wireless Libraries.

**Artwork Translators**

- Fixed a case where holes were not created properly through ODB++ Import.

**Circuit Simulation**

- ADS ETH simulator can now save Impedance versus Temperature data into dataset.
- Improved simulation results for the BSIM4 RSC and RDC parameters that were added in ADS 2016.01.
- Fixed the ETH finger map error in Harmonic Balance simulation when Y-parameter devices are present.
- Additional checks are added to see if it really is a subcircuit with a heatsource.
- Added checks to determine the zero chip area to avoid divide by zero.
- Added support for BSIMIMG 102.7.
- The ETH Simulation window is now disabled when Enable electrothermal simulator option is unchecked.
- In ADS VTB, WLAN_11ac_EVM now includes VSA 89601B demod with Compensate IQ Mismatch feature that improves EVM results.
- The MOSVAR 1.3 model now matches the reference Verilog-A source in various conditions.
- Fixed the error while performing Solve for temperature in thermal floor plan.
- ETH workspace simulation is now possible even with the small workspace path.
Examples
- Updated the EM_Class_SingleEnded_diff_wrk example under `<ADS Install Location>/examples/Training/EM/`.

IC Design Flow
- Fixed the LVS S2P Ground Terminal issue.
- Components with Physical Nets: Fixed the issue where the layout was recognized as a component even if the layout does not contain area pins.

EM
- Fixed an issue in the Momentum RF-mode when Svensson-Djordjevic dielectric loss models are present in the substrate.
- Fixed an issue with a lock remaining on a momentum view in Virtuoso that prohibits an update.
- Fixed a Momentum Turbo simulation crash.
- Fixed a Momentum on SGE cluster simulation failure when the cwd option is enabled in the SGE environment.
- Fixed an EM Model data update issue after removing a parameter from the cell.
- Fixed a deprecated bondwire to EBOND conversion issue in the Bondwire Utility Tools addon.

Platform
- When copying a technology into a new workspace, surface roughness from the materials database is also copied.

Signal Integrity/Power Integrity (SIPro/PIPro)
- SIPro generated array component symbol now show as symbol type instead of schematic view.
- Fixed the "Failed to generate sub circuit" error while performing PASI analysis.
- PIPro: Fixed the "Failed to generate test bench" error.
- Fixed the SIPro LRC model topology.
- SIPro: Fixed the "Failed to generate schematic" error.
- Schematic can now be generated with TDK component.
- Schematic can now be generated without errors when component contain pins with "Not Part of Net".
VerilogA
- BSIMCMG 108 DC currents are now similar to spectre netlist.

Wireless Libraries
- ADS VTB WLAN_11ac_EVM now includes latest VSA 89601B that supports the "Compensate IQ Mismatch" feature and improves the EVM results.

Enhancements
This hotfix also includes enhancements in Circuit Simulation, IC Design Flow, and EM.

Circuit Simulation
- Enabled multi-threading for ADS circuit simulation manager jobs.

IC Design Flow
- Device Recognition LVS: Added the capability to ignore extra pins in symbol for replaceable devices.

EM
- Added a new Package Model Extraction addon to extract an RLCK network from an S-parameter model file.
ADS 2016.01 HF1 Release Notes

Release: March 23, 2016

Version
450.hf1

Platform Support
- Supported Platforms: Windows and Linux only

Issues Addressed
This hotfix addresses issues related to ADS ADFI, Circuit Simulation, Dynamic Link, Examples, 3D Viewer, EM, IC Design Flow, PCB Links, Platform, and SIPI.

ADS Design Flow Integration (ADFI)
- Traces with arced segments larger than 180 degrees are imported correctly now.

Circuit Simulation
- Fixed the Check/View S-params tool crash on dataset files created by EM Co-simulations.
- Fixed the crash, if an old S[1-N]P component is used from a palette or library browser.

Dynamic Link
- Dynamic Link Windows AEL code are now in sync with Linux.
- Added the "Add a wire for each pin" command (In Windows).

Examples
- Uploaded the modified example "EM_Class_SingleEnded.Diff_wrk" under the <ADS Installation Dir>/Examples/Training/EM folder.

3D Viewer
- The layout of Virtuoso Pcells, opened in ADS through the Express Pcell mechanism, is now shown in the 3D Viewer.
- An issue to measure the component size has been fixed.

EM
- EM Model: an EM Model interpolation issue has been fixed that could cause a circuit optimization to hang.
- EM Setup: fixed a crash when renaming the EM Setup > Simulation Options.
- Momentum Virtuoso: the 'Via Simplification' and 'Metal Fill' settings are added to the 'Import from other state file' dialog.
- Momentum Virtuoso: fixed the "greaterp: can't handle (nil > -0.5)" error that could be triggered when trying to simulate or open the 3D Viewer.
- Project to Workspace conversion: 'File-based Momentum component' conversion now works if the space is present in the ADS installation path.

IC Design Flow
- Fixed the crash when running DRC if the first run is cancelled for a particular PDK.
- Fixed the "recursive network detected" error while creating the netlist.

PCB Links
- Allegro Board Importer now handles trace segments with arc angles greater than 180 degrees.

Platform
- ADS now handles NULL arguments to Form Initialization Procedures of CDF-based components.
- iPDK callbacks now execute when the ADS installation path contains a space.
- The version control dialog box now automatically includes library configuration items on Linux.

Signal Integrity/Power Integrity (SIPro/PIPro)
- Customer crash reports in SIPro/PIPro are now sent to Keysight.com address.
- Fixed the issue where adding resist at top and bottom layers causes low resonant frequency.
- Blank or zero frequencies for the Svensson/Djordjevic dielectric loss model no longer cause the analysis to fail.
- Saved SIPro/PIPro Setup can now be opened with the Load Project Error.

Enhancements
This hotfix also includes enhancements in Circuit Simulation, Dynamic Link, IC Design Flow, and Platform.

Circuit Simulation
- Added support for HiCUM L0 1.32.
- Added new MintOptions parameter to pass arbitrary string into Mint model code.
- Mint models are now allowed to specify instance and model parameters as a vector.
- Added support for BSIMIMG 102.6.
- Added support for MOSVAR 1.3.

Dynamic Link
- Replaced ":" with "_" in the pin name when adding wire label.

IC Design Flow
- Components with Physical Nets: Added support for virtual ground in layout.

Platform
- Improved the licensing message and behavior when Manufacturing Grid is enabled but an Advanced Layout License is not available.
Getting Started with ADS

To start Advanced Design System (ADS), click Start > Advanced Design System 201x.xx from the taskbar.

Starting in ADS 2016 Update 1.1 and later the getting starting experience:

- For existing ADS users, ADS starts normally.
- For a new ADS user, The Welcome to the Advanced Design System screen is displayed with two options:
  - New to ADS - Starts ADS Quick Start, which enables new users to discover the basics of ADS quickly.
  - Familiar with ADS - Starts ADS in normal mode and enables you to explore all the powerful and advanced ADS capabilities.

**Welcome to the Advanced Design System (ADS)**

**New to ADS**

Build your first circuit and simulate in minutes.

**Familiar with ADS**

Explore the more powerful capabilities in ADS.

[Don’t show this again. I’m familiar with ADS.]

**ADS Quick Start Mode Highlights**

- First-time User Detection: ADS Quick Start mode is enabled by default for the first time ADS users. It can be enabled or disabled in the ADS (Main) preferences.
- Simplified Experience: Skips all the startup screens and wizards of the standard mode.
- Overlay Tips: Provides quick steps for getting started effectively with circuit drawing, setting up simulation, and plotting/viewing results.
- Missing Step Detection: Displays messages when critical steps have been missed such as placing a Simulation Controller or in some case a Source.

Tips to Invoke ADS Quick Start Mode

<table>
<thead>
<tr>
<th>For New User</th>
<th>For Existing User</th>
</tr>
</thead>
<tbody>
<tr>
<td>When ADS starts, the Welcome to the Advanced Design System screen is presented. To turn off the screen:</td>
<td>ADS starts normally. To enable ADS Quick Start:</td>
</tr>
<tr>
<td>- Check the “Don't show this again.” on the lower left corner of the screen.</td>
<td>- Type ads -quickstart from the command prompt.</td>
</tr>
<tr>
<td>- From ADS Main window, click Options &gt; Preferences and uncheck the &quot;Enable Quickstart&quot; checkbox.</td>
<td>- or</td>
</tr>
<tr>
<td></td>
<td>- Create a new ADS shortcut that calls ads -quickstart.</td>
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<td></td>
<td>- or</td>
</tr>
<tr>
<td></td>
<td>- From ADS (Main) window, click Options &gt; Preferences and check the &quot;Enable Quickstart&quot; checkbox.</td>
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</table>