

# Release Notes

**v7.18.0.0**

**(Aug 4th, 2021)**

## IDesignSpec™ (IDS)

### RTL Enhancement

1. F#14901 - **"enum\_package=true"** property is supported for using enum constructs instead of parameters in verilog output. ([More Details](#))
2. F#15644 - **"cdc.clock"** property is supported in VHDL output. ([More Details](#))

### UVM Enhancements

1. F#15701 - Removal of hdl\_path from the UVM collateral by using **"ignore\_prop=hdl\_path"** on a particular block. ([More Details](#))
2. B#1231 - Configure function in UVM is now described using named mapping.
3. F#15993- **"uvm\_opt"** has been enhanced to replace the 'h prefix in the arrayed register names with a decimal index. ([More Details](#))

### C header Enhancements

1. F#15849 - Enhancement has been done in **"#define"** for reset value of a field when dynamic assignment is used in header output with top property **"cheader\_opt=true"**.
2. F#15275 - **"cheader\_ignore"** property has been enhanced for removing structs for chip, block, regfile, register address and INV\_MASK, VALUE\_MASK, INV\_VALUE\_MASK macros for header with **"cheader\_opt = opt"** property. ([More Details](#))

## SystemRDL Enhancement

1. F#15238 - Enhancement has been done to change naming convention in UVM and C-header to change the original name as primary instead of an instance name in case of parameter overriding using **"inst\_name\_cppstyle=true"**. ([More Details](#))

## Bug Fixes

### RTL

1. F#15865 - Fix for missing iterator when repeated sections are used while generating SystemVerilog output.
2. F#15841 - Fix in verilog for multi-bit fields when CDC hardware synchronization is used.
3. F#15843 - Fix in verilog for compilation error when using **"rtl.hw\_wp"** on wide registers.
4. B#1308 - Fix "<regname>\_<field>\_in\_enb" port being formed outside the port list in case of **"we"** property in verilog2001.
5. B#1354 - Fix in "rd\_valid\_out" signal in case of a deep hierarchy of repeated sections in verilog output.
6. F#15558 - Parity is supported with hierarchical repeat in verilog.
7. F#16043 - Fix for parity per byte register when the least significant bit of field in a register is not 0.
8. F#15969 - Fix for generation of unused wires when **"rtl.hw\_vector"** property is used to generate verilog output.
9. F#15924 - Fix in **"rtl.hw\_enb"** property with read only s/w access:
  - a. When the property is applied on top with **"-fast"** switch
  - b. When the property is applied in combination with **"rtl.precedence=sw"**
10. F#15932 - Fix has been done to match the "addr\_decode" to stride size when stride is used for verilog output.
11. F#15910 - Fix for "rd\_wait signal" logic in verilog when a flopped version of APB widget is used.

12. F#15977 - Fix in parsing issue when lock property in combination with **"rtl.name\_format"** is applied.

## **UVM**

1. B#1180 - Fix in the status of individually accessible bits.
2. B#1250 - Fix for interrupt callback.
3. B#1344 - Fix for missing lock callback class when lock registers are specified inside the section and the section itself is referred multiple times along with dynamic assignments.

## **C Header**

1. F#15275 - Fix for removing **"\_e"** from the generated enums in header output with **"cheader\_opt=true"**.
2. B#1355 - Fix for spacing issue when **"cheader\_name\_format"** property is used in Chip-in-Chip scenario for optimized headers.
3. F#15888 - Fixed filter issue in headeralt2 when stride is used in the register specification.

## **IP-XACT**

1. F#15470 - Fix for compilation issue when enums take hex values.
2. F#14700 - Fix for reset value of fields while importing IP-XACT files.

## **General**

1. B#1253 - Fix for non-inclusion of leaf files in the top file has been done for c\_api output when **"multi-out(-if)"** option is used.
2. F#14575 - Fix newline issue in markdown output.
3. F#15196 - Fix naming inconsistency in SVHeader output for Chip-in-Chip flow with deep hierarchy.
4. F#15912 - Fix for hiding reserved field's name when **"is\_rsv"** property is used along with **"variant"** and **"doc\_unused\_remove"** for HTMLalt2 output.
5. F#15941 - Fix address calculation of ToC in IDS-Word.
6. F#16085 - Fix stride calculation for repeated registers for HTMLalt2 and PDFalt2 outputs.
7. F#15544 - Fix for importing IP-XACT file in IDS-Calc and IDSExcels.
8. F#15594 - Fix for importing SystemRDL file in IDSExcels.
9. G#IDSBatch#319 - Fix for incorrect offset calculation issue when **"html\_show\_reserved\_bits"** property is used.
10. F#16087 - Fix for generating html file with extension .htm instead of .html.

## ISequenceSpec™ (ISS)

### Enhancements

1. B#1297 - Enums are supported in the python input format. ([More Details](#))
2. B#1297 - Write/Read registers by accessing structs in Firmware output. ([More Details](#))
3. B#1297 - Users can use Nested structs in the python input format. ([More Details](#))
4. G#IDSCalc#322 - "Return type" option for SystemVerilog is now available in the configure window of IDS-Calc.
5. G#IDSExcels#15 - "Return type" option for SystemVerilog is now available in the configure window of IDS-Excels.

### Bug Fixes

1. B#1168 - Fix for missing begin-end in case of fork-join for UVM sequence output.

## ARV™

### Enhancements

1. B#1212 - Support of repeat property with memory for arv output. ([More Details](#))
2. B#1346 - Supported Sequences for repeated registers.

### Bug Fixes

1. B#1276 - Fix for incorrect instantiation of RTL in the "Top.sv" file when both verilog and VHDL are generated with arv.
2. B#1350 - Fix for APB Driver hang issue when both internal and external components are used together in the registermap.

## Specta-AV™

### Enhancements

1. B#1210 - VHDL RTL is now supported with Specta-AV. ([More Details](#))
2. B#1248 - 'assert', and 'wait' keywords are now supported in python checkers. ([More Details](#))
3. B#1248 - Support for parallelism, i.e., fork-join, fork-join\_any, and fork-join\_none in python checkers. ([More Details](#))
4. B#1291 - Capability of Checkers in Specta-AV has been enhanced with support of loops in checks: ([More Details](#))
  - a. While
  - b. Do-while
  - c. For

5. B#1347 - Support of Interrupt Classification i.e. intr.out, intr.per\_channel in middleware events.([More Details](#))

## Bug Fixes

1. B#1210 - Fix for missing event declaration in ModelUpdater when **"rtl.hw\_rp"** property is used.
2. B#1165 - Compilation fix in Specta-AV when no checker is present.
3. B#1352 - Fix in display function in checkers for printing value of variables.
4. B#1258 - Fix for compile error when predefined assign library is used in checkers.
5. B#1210 - Fix in model updater file for deep hierarchy.
6. B#1351 - Support for multiple checks into the checker on the same event.
7. B#1348 - Fix in wrapper file when external register is specified.
8. B#1210 - Fix for deep hierarchy in Model Updater with **"repeat"** property.

## SLIP-G™

## Bug Fixes

1. G#IDSNG#275 - Fix for missing counter\_width parameter in the parameter table of TIMER IP.
2. G#IDSNG#275 - Fix for incorrect count of status and enable register when default generation parameters are used for TIMER IP.
3. G#IDSNG#275 - Fixed register and field repeat value issue for PIC and TIMER IP.
4. B#1292 - Fix for syntactically incorrect code of GPIO IP in the following cases:
  - a. When two or more GPIO IPs are defined inside a chip.
  - b. When pin width is greater than 32.
  - c. When "custom" bus protocol is used.
5. B#1293 - Following fixes are done in I2C IP:
  - a. Incorrect instantiation of register map in the top file.
  - b. Double port connection of "irq" port in chip and block.

- c. Undefined wires in chip file, missing top connections, and unwanted ports connections.
  - d. Syntactically incorrect code when "custom" bus protocol is used.
- 6. B#1295 - Following fixes are done in TIMER IP:
  - a. Incorrect port connection of irq port while instantiating top in chip file.
  - b. Syntactically incorrect code due to duplication of "clk" signal when "custom" bus protocol is used.
  - c. When multiple TIMERS are taken inside a chip, then while instantiating the top of each TIMER IP at the chip, there are multiple connections to the "clk" port.

## ASVV™

### Enhancements

- 1. B#1306 - Following are the enhancements in ASVV
  - a. Chip-in-Chip support
  - b. AMBA AHB bus is supported
- 2. B#1217 - Out of Box 100% coverage supported for all software register accesses. ([More Details](#))
- 3. B#1172 - Chip support with multi-out option.
- 4. B#1223 - Single line interrupt support.

### Bug Fixes

- 1. B#1306 - Fixes related to assertion in case of bus protocol violation.

## IDS NextGen™ (IDS-NG)

### Enhancements

1. G#IDSNG#17 - Supported hinting of multiple sequences, arguments, constants, and variables in sequence view.
2. G#IDSNG#18 - Supported API hinting in Specta-AV™.([More Details](#))

## **Bug Fixes**

1. G#IDSNG#275 - Fix for parameters according to the register table and define.
2. G#IDSNG#275 - Fix for register insert template according to configure windows value given by user.
3. G#IDSNG#275 - Fix for incorrect width value in signal table.
4. G#IDSNG#21 - Fixed IDS-NG license issue (Now users will be able to use IDS-NG editor, if the license expires).
5. G#IDSNG#22 - Fix for removal of ref template name while switching from register view to spreadsheet view.
6. G#IDSNG#284 - Fixed missing context menu on click in the spreadsheet view.
7. G#IDSNG#284 - Fix for insert, cut, copy, and paste rows and columns in the spreadsheet view.
8. G#IDSBatch#15282 - Fix asp perl compilation issue while importing RDL file.
9. F#16047 - Fix issue of java FX warning message in Runtime environment of IDS-NG.



