# **Release Notes**

v7.10.0.0

(April 6th, 2021)

**IDesignSpec™ (IDS)** 

#### **RTL Enhancements**

- 1. APB flopped widget is now supported in VHDL output . (More Details)
- 2. "tmr\_error" property is now supported in SystemVerilog output. (More Details)
- 3. Alternate Registers are supported inside sections for Verilog output. (More Details)
- 4. "intr.detect\_nometa" property is enhanced to remove two flop synchronizers. (More Details)

### **SystemVerilog Enhancements**

1. Structs have been supported for chip-inside-chip. (More Details)

#### **UVM Enhancements**

1. "rwpair" is supported at field level in UVM-RAL. (More Details)

#### **C Header Enhancements**

1. Users can add customised code at the top of header files using [Cheader loc="top"] ... [\Cheader] in description of input spec. (More Details)

#### **General Enhancements**

- 1. IDS generated outputs can be stored on OneDrive in IDSWord and IDSExcel.
- 2. TCL script is generated using Apache velocity template to instruct synthesis tool to avoid deletion of flops having TMR. (More Details)
- 3. Support for multiple browse options in the output directory is added in IDSWord and IDSExcel.
- 4. IDSCalc flavor has been enhanced with SystemVerilog output.
- 5. Quality checks have been supported in IDS to ensure improved register-map quality using switch 'check quality'. (More Details)

### **Bug Fixes**

#### RTL

- 1. Fix for incorrect error message if top component is not specified when multiple addrmaps are used along with regfile.
- 2. Fix done for dynamic assignment of parameterized software access of field in htmlalt2 output.
- 3. Changes in naming convention of referred blocks when multi-out option is used for Verilog output in IDSWord and IDSExcel. Henceforth, naming will depend upon the name of the blocks, instead of the foremost register inside the block.
- 4. Fix for incorrect code generation when "rtl.bit\_enable=true" property is used along with "rtl.byte\_enable=false" property.
- 5. Fix for compilation error when write pulse is used with "rtl.byte\_enable=false" and "rtl.bit\_enable=false" properties.
- 6. Fix for reserved lsb of register while generating Verilog output when either "rsvdset" or "rsvdsetX" property is used in register specification.
- 7. Fix for extra begin-end when alias property is used with hard reset.
- 8. Fix for missing iterators when "registered = false" with repeat property for deep hierarchy.
- 9. Fix for asynchronous reset in chip-in-chip flow.
- 10. Fix for making enum names unique when same name enums are used on different registers for Verilog output.

### **SystemVerilog**

1. Fix for formation of redundant wires when repeat property is used on multiple components in deep hierarchy.

#### UVM

- 1. Fix for combination of multi-valued reset fields and single-valued reset fields defined inside a register.
- 2. Fix for missing iterator in add\_submap when "uvm\_add\_regmap" property is used along with repeat.

- 3. Fix for lock registers when declared inside repeated blocks.
- 4. Fix for incorrect RAL generation when parameters are declared in input specification but not used.
- 5. Fix for naming convention while using "%p" format specifier in "uvm.reg\_name\_format" property.

#### C Header

1. Fix for generation of fillers when reserved registers are used.

### **SystemRDL**

1. Fix for "ids\_we" UDP to take up values in the following format:

```
<register>@<property>
```

#### **IP-XACT**

- 1. Fix done for "snps\_ralgen=1" property when used along with hdl\_path.
- 2. Fix for reserved empty blocks when PDF-alt2 output is generated using IP-XACT input specification.

### General

- 1. Fix for -html\_css switch while generating single file for HTML-alt2.
- 2. Fix for incorrect configuration in XML files when exported from IDSExcel specification.
- 3. Fix for "\n" in description for Markdown output.
- 4. Fix for line break issue in HTML and SystemRDL output.
- 5. Fix for [sp] tag (space issue) in SystemRDL 2.0 output.
- 6. Fix for multiple enums being used inside a register when HTML-alt2 and PDF-alt4 outputs are generated.
- 7. Fix for properties column header in IDSExcel input while generating Verilog and VHDL output.

- 8. Fix for issue in code generation when "sv\_param=true" property is used for SVHeader output.
- 9. Fix in enum property to make it compatible to be used on fields, as per their sizes for SVHeader and VHeader outputs.

### **SLIP-G™**

- 1. Following IPs have been added in the standard library:
  - a. AES (More Details)
  - b. PWM (More Details)
- 2. SPI (More Details) and DMA (More Details) IPs are now available in IDSWord.

### **Bug Fixes**

- 1. Fix for interrupt generation of GPIO and TIMER IP at chip-level.
- 2. Fix for core of IPs not being included in the chip.
- 3. Fix for incorrect instantiation of register map in the core of PIC and GPIO IP.
- 4. Fix for incorrect generation of ports in TIMER IP.

## **ISequenceSpec™ (ISS)**

### **Enhancements**

- 1. Support for variants in sequences to control their flow. (More Details)
- 2. Read/write operations are supported on hardware interfaces(<u>More Details</u>) and memories(<u>More Details</u>).
- 3. "enum.name\_format" property is supported in sequences to uniquify mnemonic names of enum for SystemVerilog and Firmware sequences. (More Details)

### **Bug Fixes**

1 . Fix usage of parameters, defines and enums in sequences. The values for these can now be taken from the register specification.

### **ARV**<sup>TM</sup>

#### **Enhancements**

1. Memory is supported in ARV with VHDL RTL. (More Details)

Note:- Sequences will be encrypted moving forward.

### **Bug Fixes**

1. Fix for compile error in external memory and external register.

### **ASVV**<sup>TM</sup>

### **Enhancements**

- 1. Customised sequences are now supported. (More Details)
- 2. Mentor simulator is supported to be used with ASVV generated files. (More Details)

# **IDS NextGen™ (IDS-NG)**

### **Enhancements**

- 1. Outline views for C-APIs, Checkers and sequences are now available in hierarchy views.
- 2. Property Views has been added for register views in IDS-NG (More Details).

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