

Known Limitations

There is a known issue (CCR [#01644165](#)) during LEC checking, workaround is described in the user guide.

Summary of updates to 4.0.2/3 releases that are included in 4.1 release.

Setup/General

- This release is mandatory for sign off of any design in 7nm node.
- Most tool versions have been updated.

Synthesis

- a) Default synthesis scripts use Genus native format. (CUI)
- b) Added support for memory wrappers.
- c) Uses MMMC file for library read in
- d) Supports metrics

Jasper AFL

- a) Added basic DfT checks
- b) Updated afl_setup.tcl for new tool versions.

DFT, ATPG and ATPG simulations

- a) Modus 16.20 tool is now default ATPG tool.
- b) Encounter Test is being phased out, still supported in legacy mode.
- c) Several options included to run_atpg.csh command script.
- d) Option to separate at-speed from stuck-at test mode, driven by IPS requirements.
- e) Option to define timing relations between scan signals to counteract insertion delays on scan signals.
- f) Xcelium 16.11 is now default simulator for ATPG patterns, Incisive supported in legacy mode.
- g) Compilation and sdf annotation divided in two different scripts.
- h) Simulation reports split per corners.
- i) Simulation debug option.

LEC

- a) 2-stage flow is mandatory, 1 stage flow phased out.
- b) 2.0 1801 format supported

CLP

- a) 16.2 commands supported
- b) 1801 2.0 supported

Innovus

- a) Scripts use Common_UI mode
- b) Shares same MMMC file as Genus
- c) Enhanced multithreading

Jiras

Key	Summary	Components	
SISFLOW-495	Add \$TMAX_ROOT in http://lvsvn:20000/svn/ip_factory/tags/ipf_scripts_phase4.0.2/scripts/setup/setup_dirs.tcl file	DFT	
SISFLOW-532	Incorrect specification of the in2reg path group	SYNTHESIS	
SISFLOW-509	ATPG run time error	Compile check, DFT	
SISFLOW-428	Review AFL DFT Checks	Jasper AFL	
SISFLOW-534	Commands for cpf are unusable with innovus 16.20	PNR	
SISFLOW-545	DFT : RDF flow not working if the RTL_SCAN_IN=SCAN_IN	DFT	
SISFLOW-538	Remove -linedebug from irun commands	DFT Architecture & Methodology	
SISFLOW-535	Review digital checklist items related to DFT activity tracking and completion	DFT	
SISFLOW-300	SIS Release Flow JIRA fields	DR0-DR3, GA Checklists	
SISFLOW-456	Doc 4.0.2 updates	User Guide Documentation	Actions
SISFLOW-531	Updates for xcelium	DFT, User Guide Documentation	
SISFLOW-440	update tech_lib_setup.tcl for ATPGLIB to pickup verilog not mentor views	DFT	
SISFLOW-487	DFT : Inclusion of option incudenetnames=yes to write vectors	DFT	
SISFLOW-476	sgdc overwritten in case of fatal error	SPYGLASS	
SISFLOW-465	Add ability in ATPG scripts to support control of switching variables	DFT	
SISFLOW-501	request to change back attribute use_scan_seqs_for_non_dft to false	SYNTHESIS	

SISFLOW-482	tech_lib_setup for TSMC28HPC_9T: wrong CLK BUFFERS/CLK INVERTERS list	SETUP	
SISFLOW-502	Please update setup_project_template.csh for openLava genus Issue	SETUP	
SISFLOW-537	run_phys.csh -synth genus stop workin because it cannot find file	LEC Equivalence Checking	
SISFLOW-519	Conformal LEC do file does not function if GENUS version 16.x used	LEC Equivalence Checking	
Key	Summary	Components	
SISFLOW-170	Each checklist question should have a unique and identified owner	DR0-DR3, GA Checklists	Actions
SISFLOW-451	DFT checks in DR2/3	DR0-DR3, GA Checklists	
SISFLOW-454	check ATPG script for compatibility with Modus	DFT	
SISFLOW-472	TESTMODES text in setup_project_template.csh incorrect	SETUP	
SISFLOW-491	compilation script does not support +define	Compile check	
SISFLOW-498	syn_opt -physical breaks DfT	SYNTHESIS	
SISFLOW-533	Change DR0 questions regarding top-level I/O to architecture level only	DR0-DR3, GA Checklists	
SISFLOW-493	rc_flow.tcl make the "Attributes to prevent non-alphanumeric characters" a non-default option	SYNTHESIS	
SISFLOW-530	Please improve some of the questions in the verification section of the DR1 checklist	DR0-DR3, GA Checklists	
SISFLOW-441	UNIQUIFY step needs to take into account preserved modules.	SYNTHESIS	
SISFLOW-524	UNIQUIFY_MODULES can fail	SYNTHESIS	
SISFLOW-435	RDF does not support synthesis of pure combinational block.	SETUP, SYNTHESIS	
SISFLOW-489	[Innovus] change timing_apply_default_primary_input_assertion parameter to false	PNR	
SISFLOW-516	[TUI-666] message reported in the flow	SYNTHESIS	
SISFLOW-520	Abort the scripts if there are errors in constraint file	SYNTHESIS	
SISFLOW-447	RDF creates two gate level netlists, <>.v & <>.vg	SYNTHESIS	
SISFLOW-521	Check timing intent	SYNTHESIS	
SISFLOW-510	Innonus tool does not automatically place IOs	PNR	
SISFLOW-527	Synthesis crashes on set_analysis_view for multi-mode design	SYNTHESIS	
SISFLOW-529	Driver for a test pin is an internal node	DFT	

Key	Summary	Components	Actions
SISFLOW-526	Update cdc.do to remove the text for report skip instances	CDC	
SISFLOW-417	Support simulations with black boxes	DFT	
SISFLOW-484	Request for user defined ncsim arguments	DFT	
SISFLOW-523	issue in expand.pl resulting in incorrect expanded.f	SETUP	
SISFLOW-522	issue in filelist_setup.csh resulting in incorrect rdf4.0.1_expanded.f	SETUP	
SISFLOW-504	Introduce timing parameters for Modus for the better simulation control	DFT Architecture & Methodology	
SISFLOW-503	Update documentation fro CCD 16.2 when tool is available	CDC , SDC	
SISFLOW-406	Improve clock domain handling for at-speed atpg	DFT	
SISFLOW-514	Create clear separation for designs that require dedicated at-speed test modes	DFT Architecture & Methodology	
SISFLOW-518	CCD Tool Crash due to -mcc option in single SDC mode	SDC	
SISFLOW-480	Need checker for scan abstract and RTL pin compatibility	RTLDesignFlow checklist	
SISFLOW-511	CCD SDC report files	CDC	
SISFLOW-513	Request for lint ruleset update in CCD/Superlint vs. Spyglass	LINT	
SISFLOW-470	CoE Recommendation for Analog-Digital isolations	DFT Architecture & Methodology	
SISFLOW-461	Update AFL DFT rules and associated scripts	Jasper AFL	
SISFLOW-507	Update AFL to jasper_2016.09	LINT	
SISFLOW-508	The adviced version of Jasper has problems to re-apply waivers after exporting them and re-running the tool	Jasper AFL	
SISFLOW-473	CCD creates its own clock groups, having only 2 clocks in 1 clock group even when there are more than 2 clocks in a clock group.	SDC	
SISFLOW-500	A set of waivers that live alongside the async FIFO	Jasper AFL	
SISFLOW-478	update sdc templates to correct use of -nocase with -regexp switch	SETUP , STA	
Key	Summary	Components	Actions
SISFLOW-479	script bug if HARD_MACRO_INSTANCE_NAME is defined	PNR	
SISFLOW-464	The sync flops are getting changed to non-sync flops	SYNTHESIS	
SISFLOW-494	typo in et_flow_ips.tcl	DFT	

SISFLOW-460	problem with read_dft_abstract for multiple instances of the same basename	DFT
SISFLOW-469	Preserve is not working properly	SYNTHESIS
SISFLOW-481	date stamp checking in PNR part of run_phys.csssh causes overnight runs to fail	PNR
SISFLOW-488	update EDI libs in tech_lib_setup.tcl from NLDM to ECSM	SETUP
SISFLOW-376	Enable faster ATPG by adding hosts=lsf	DFT
SISFLOW-485	Convert ET scripts to Modus	DFT Architecture & Methodology
SISFLOW-443	RDF UserGuide Updates	User Guide Documentation
SISFLOW-474	Please add extra question in DR1 checklist under project management	DR0-DR3, GA Checklists
SISFLOW-466	additional commands in rc_flow.tcl to help LEC	LEC Equivalence Checking, SYNTHESIS
SISFLOW-468	Conformal CCD tool crashing because variable used out of scope.	CDC, SETUP
SISFLOW-467	CDC script issue for handling multiple design modes	CDC
SISFLOW-450	DR1 : 2.08	DR0-DR3, GA Checklists
SISFLOW-458	DFT : HIGHZ instruction support in BSCAN	DFT
SISFLOW-429	add switches into RC for PPA reporting	PNR
SISFLOW-455	Enhance DFT simulation scripts to support parallel runs	DFT
SISFLOW-453	CCD multi mode SDC checks broken	SDC
SISFLOW-449	Consider adding a checklist item to DR2 to ask designer if they have carefully read re-use block documentation	RTLDesignFlow checklist
SISFLOW-515	Change order of syn_opt to pre scan	SYNTHESIS
SISFLOW-372	Add DC scripts to RTL Design Flow and to Stork	SYNTHESIS
SISFLOW-544	AFL Lint - reachable FSM states reported as unreachable?	Jasper AFL
SISFLOW-471	support prefixes to auto inserted scan I/O names	DFT
SISFLOW-193	Update scripts for -cfg switch	SETUP
SISFLOW-222	Tidy up indentation	SETUP

[Actions](#)

SISFLOW-346	Consider use of -advanced switch with check_dft_rules during synthesis	DFT , SYNTHESIS
SISFLOW-452	Minor editorial correction in filelist_setup.csh file	SETUP
SISFLOW-351	The default for this attribute should be true set_attr_hdl_auto_async_set_reset	SYNTHESIS
SISFLOW-512	Enhance Genus area reporting with Flops per module/instance count	SYNTHESIS
SISFLOW-426	Linehold generation for ATS in RDF	DFT
SISFLOW-420	Add RC/Genus warnings when CTL is not loaded for IPS project	DFT
SISFLOW-496	Generating reports after AFL run	Jasper AFL
SISFLOW-486	Reuse question clarification in DR1/2 checklist - how to raise DRU JIRA	DR0-DR3, GA Checklists