

Description

To accelerate the design of complex systems, such as System-on-Chip (SoC) and FPGA based solutions, the IP-XACT standard provides a mechanism for describing and handling multi-sourced IP. It enables automated design integration and configuration within multi-vendor tool flows.

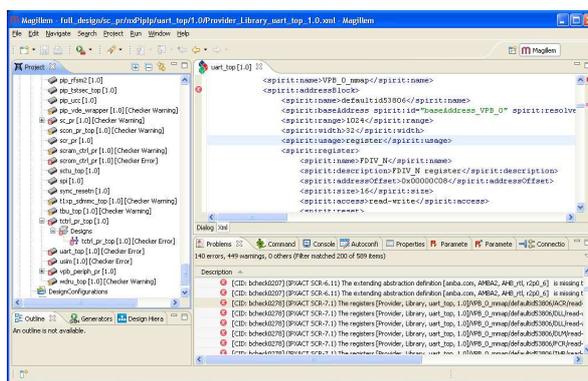
The IP-XACT standard delivers a common specification to enable easy exchange and integration of IPs between multiple IP providers and integrators. In particular, it defines a complete set of syntax and semantic rules to ensure that bus, IP and platform descriptions will be compatible, consistent and interpreted by compliant tools as expected and defined by their providers.

Magillem Checker Suite is the ultimate compliance suite which enables IP providers, integrators and flow engineers to effectively assess their compliancy to IP-XACT and detect any non-standard information early in the design flow. In addition to standard syntax and semantic rules, the suite delivers further DRC and integration checks to verify the correctness of a platform or IP. Magillem Checker Suite advantages are:

- ✓ Non-intrusive, scalable and automatic process
- ✓ GUI and command line execution can be performed
- ✓ All syntax and semantic checks defined by the SPIRIT consortium are checked
- ✓ Perform additional DRC and IP packaging checks
- ✓ Supports main IP-XACT formats
- ✓ Checker report generation (text, html, rtf, pdf)

- ✓ Configurable severity level for each check
- ✓ Direct link to the error/warning/info location in Magillem IP-XACT editor for easier debugging
- ✓ Additional custom checks can be implemented for user-specific controls (Java, TCL, Ruby and Python supported) and added to the checker suite execution

Features



- Check all syntax and semantic checks defined in the IP-XACT standard
- Support IP-XACT 1.4 and IEEE 1685 versions
- Custom checks support
- Configurable checker severity
- Checker reports in several formats
- Checker waivers
- Contextual help
- Checker comments
- Multiple checker policies

Benefits

To the IP provider:

- Assessment of IP description compliancy before its delivery to the integrator
- Fasten problem resolution with contextual help
- Generation of compliance report on IP deliverables

To the IP integrator:

- Compliancy assessment on third-party IP-XACT file deliveries
- Enable detection of non-compliant IP deliverables before IP integration starts
- Platform assembly checks throughout integration process

To the Flow owner:

- Integration of check suite into qualification flow

To the Project lead:

- Continual verification, tracking, reporting

CheckID	IP-MATCH	Severity	Message
boheck0076	1.4	ERROR	Bus definition referenced in the component is missing. (some:TDH:ipg_H5Bus_sim_initiator_1.0/13_master_sim_H5Bus/ (some:H5Bus:T3.0))
boheck0076	1.4	ERROR	Bus definition referenced in the component is missing. (some:TDH:ipg_H5Bus_sim_initiator_1.0/13_master_sim_H5Bus/ (some:H5Bus:T3.0))
boheck0076	1.4	ERROR	Bus definition referenced in the component is missing. (some:TDH:top_generated_check_170_1.0/13_master_sim_H5Bus/ (some:H5Bus:T3.0))
boheck0076	1.4	ERROR	Bus definition referenced in the component is missing. (some:TDH:top_generated_1.0/13_master_sim_H5Bus/ (some:H5Bus:T3.0))
boheck0099		ERROR	Unable to connect instance transactional port ipg_H5Bus_sim_initiator_inst_0_m_resp_port@netlist_internal_design_boundary to signal ipg_H5Bus_sim_initiator_inst_0_m_resp_port_sig since their types are not compatible.
boheck0099		ERROR	Unable to connect instance transactional port ipg_H5Bus_sim_initiator_inst_0_m_resp_port@netlist_internal_design_boundary to signal ipg_H5Bus_sim_initiator_inst_0_m_resp_port_sig since their types are not compatible.
boheck0099		ERROR	Unable to connect instance transactional port ipg_H5Bus_sim_initiator_inst_0_m_resp_port@netlist_internal_design_boundary to signal ipg_H5Bus_sim_initiator_inst_0_m_resp_port_sig since their types are not compatible.
boheck0099		ERROR	Unable to connect instance transactional port ipg_H5Bus_sim_initiator_inst_0_m_resp_port@netlist_internal_design_boundary to signal ipg_H5Bus_sim_initiator_inst_0_m_resp_port_sig since their types are not compatible.
boheck0120	6.23	ERROR	A transactional port _must_ have exactly one service type definition to be netlisted properly. (some:TDH:top_generated_check_170_1.0/13_ipg_H5Bus_sim_initiator_inst_0_m_resp_port)
boheck0120	6.23	ERROR	A transactional port _must_ have exactly one service type definition to be netlisted properly. (some:TDH:top_generated_1.0/13_ipg_H5Bus_sim_initiator_inst_0_m_resp_port)
boheck0120	6.23	ERROR	A transactional port _must_ have exactly one service type definition to be netlisted properly. (some:TDH:top_generated_1.0/13_ipg_H5Bus_sim_initiator_inst_0_m_resp_port)
boheck0141		ERROR	The parameter (some:TDH:ipg_H5Bus_sim_initiator_1.0/H5Bus_TYPE(Value of format float) has a value prt_sim_H5Bus:T3 of different format.
boheck0145		ERROR	The parameter (some:TDH:ipg_H5Bus_sim_initiator_1.0/m_req_port/trans_service_type_defn_m_H5Bus:ADDRESS_TYPE of format 'long' is depending of parameter (some:TDH:ipg_H5Bus_sim_initiator_1.0/ADDRESS_TYPE of the format 'string'.
boheck0145		ERROR	The parameter (some:TDH:ipg_H5Bus_sim_initiator_1.0/m_req_port/trans_service_type_defn_m_H5Bus:TYPE of format 'string' is depending of parameter (some:TDH:ipg_H5Bus_sim_initiator_1.0/ADDRESS_TYPE of the format 'float'.
boheck0307		ERROR	The File Name (/include/ipg_H5Bus_sim_initiator) does not exist referred in (some:TDH:ipg_H5Bus_sim_initiator_1.0/source-code). The resolved path is C:\Documents and Settings\user\ipg_H5Bus_sim_initiator_1.0\include\ipg_H5Bus_sim_initiator.h
boheck0300	1.10	WARNING	Abstraction definition referenced in the component is missing. (some:TDH:ipg_H5Bus_sim_initiator_1.0/13_master_sim_H5Bus (some:TDH:T3_H5Bus:2.0))
boheck0300	1.10	WARNING	Abstraction definition referenced in the component is missing. (some:TDH:ipg_H5Bus_sim_initiator_1.0/13_master_sim_H5Bus (some:TDH:T3_H5Bus:2.0))



Specifications

Magillem Checker Suite FEATURES

IP-XACT 1.4 support X

IP-XACT IEEE 1685 support X

Checker execution

GUI execution X

Command-line & TCL/Ruby/Python execution X

Checker type

Syntax checks X

Official IP-XACT / IEEE1685 Semantic checks X

Additional DRC and IP consistency checks X

Checker configuration

Configurable checker severity X

Definition of checker severity in a global policy file X

Custom checker

User specific custom-check implementation (in Java, TCL, Ruby and Python) X

Configurable custom-check severity X

Custom check link to error/warning/info location in IP-XACT editors X

Enforce company specific xml requirement X

Verify the completeness of an ip-xact delivery against a given set of expected content X

Checker report

Checker report generation (in text, html, pdf, rtf format) X

TCL/Ruby/Python API to browse report X

Checker waivers X

Associate comments to checker report X

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