NEWSLETTER

SEPTEMBER 2016

FRACTAL, THE NEED FOR IP QUALIFICATION

IP MUST BE QUALIFIED BEFORE IT IS USED IN THE DESIGN FLOW

Waiting for issues to appear during design-verification close to tape-out poses high risk to the design schedule.

Examples:

- Transistor bulk terminals connection errors in SPICE: timing/power closure will work, only final SPICE netlist check will uncover the problem
- LEF-to-GDS mismatch: final GDS can be fully synthesized, but will require a re-release of the IP (and re-synthesis) after issue is detected by final LVS

A specialized partner for IP qualification is needed because of complexity, amount of required checks and excessive data volumes

CROSSFIRE UPDATES

Recently Crossfire improvements:

- New Rules:
  - Coloring support in LEF, layers of LEF format can be defined with mask information
  - Check for std_cell_main_rail
  - Check same values between 2 corners
  - DEF DIEAREA check
  - UPF invalid keywords check
  - Support for cut layers in layout versus layout check
  - "What to do" button in HTML reports: explains designers what to do in case of errors on a rule. User programmable.

MORE FORMATS SUPPORTED

- IBIS
- Industry standard update for lef/def parser 5.8

FRACTAL AT DAC 2016

Thanks for visiting us at DAC, show was great, good feedback from existing customers and lot of interest from new companies.

53 DESIGN AUTOMATION CONFERENCE

ABOUT CROSSFIRE

Crossfire reports mismatches or modeling errors for Libraries and IP that can seriously delay an IC design project.

Library and IP integrity checking has become a mandatory step for a "state of the art" deep submicron design due to the following challenges:

- The sheer number of different views
- The complexity of the views (ECSM, CCS)
- The loss of valuable design time
- Time to market

Crossfire helps CAD teams and IC designers achieving a high quality of design data in a short time.

Crossfire assures that the information represented across the various views is consistent and does not contain anomalies.

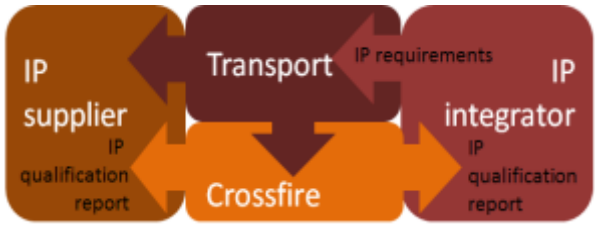
CROSSFIRE USABILITY FEATURES

Graphical setup creation & run environment as well as batch runs

- Powerful hierarchical configuration language supporting macro functions
- Graphical debugging (message > double click > open relevant views)
- Graphical output filtering (zoom in on cells/formats/error-types)
- Waiving mechanism
- HTML and CSV reports
- Automatic setup generation
- Setup API
- Generic setups
- Parallel Parsing feature

FRACTAL TRANSPORT

Transport™ serves as an input format to Crossfire, describing what checks Crossfire needs to execute on which IP databases, as specified by the IP integrator.



Fractal Crossfire and Transport

Read the Fractal White Paper online!

CROSSFIRE INTEGRATION FEATURES

API for creating database independent checks, available in: Perl, Tcl and Python

Existing customer validation scripts can be integrated

Visualization messages/results from customer scripts (double click opens message)

CROSSFIRE INTERVIEW

Visualization and browsing of database contents

Opens e.g. LEF, GDS, CDB, OA and Milkyway views in a single window

CROSSFIRE DIAGNOSE

Diagnose is the Crossfire GUI designed for users that wish to only analyze Crossfire results. The setup and test definition sections of Crossfire are completely shielded from the user. The user can see, report, filter, waive and analyze the generated Crossfire messages.

FRACTAL Technologies

ABOUT FRACTAL TECHNOLOGIES

Fractal Technologies is a privately held company with offices in Los Gatos, California and Eindhoven, the Netherlands. The company was founded by a small group of highly recognized EDA professionals.

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