

### FRACTAL AT DAC, BOOTH 2333

DAC 2018, San Francisco, CA, June 24-28

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### SEMIWIKI ARTICLE, CROSS VIEW STATIC VALIDATION

Improper handling of design validation could simply translate into a debugging exercise. In mainstream RTL2GDS flow, design implementation involves a top-level integration and lower-level block developments. These lower-level components, comprising of macros, IPs and standard cells are subjected to frequent abstraction captures as inherently required by many cross-domain development and analysis tools. As a result, validation without automation is becoming a complex debugging feat.

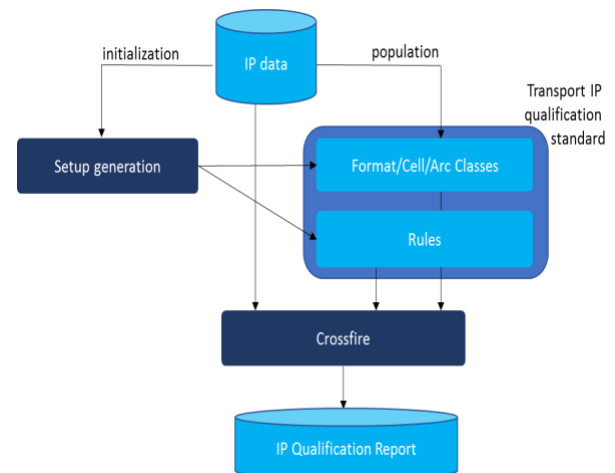
[CLICK LINK TO READ ARTICLE](#)

### FRACTAL JOINS TSMC OPEN INNOVATION PLATFORM ALLIANCE

[Click link to read press release](#)

### SETUP GENERATION FOR CROSSFIRE

In this new white paper we discuss the customization process for the Fractal Crossfire IP qualification tool. We review the toolbox provided by Crossfire to automate the setup process and the ways in which a design organization can further leverage a well-designed IP qualification setup by providing it as a standard to its suppliers.



[CLICK LINK TO READ WHITE PAPER](#)

### CROSSFIRE UPDATES

Recent Crossfire improvements:

- New Rules and Features:
  - Message Database size reduction (Beta)
  - Full syntax checking in System Verilog
  - Support for Ipython and Ipdb in frc\_python
  - Cross check pin attributes between LEF and Liberty
  - DEF shape-type check
  - DEF component overlap check



## 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 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 wish, waive and analyze the generated Crossfire messages.

## 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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