

### FRACTAL AT TSMC 2019 TECHNOLOGY SYMPOSIUM



Visit us for latest Crossfire update at:

TSMC Technology Symposium Tuesday April 23,  
Santa Clara Convention Center, booth 207

TSMC Technology Symposium Wednesday May 8,  
Fairmont, Austin TX.

### FRACTAL AT DAC, BOOTH 2333



FROM CHIPS TO SYSTEMS – LEARN TODAY, CREATE TOMORROW

DAC 2019, Las Vegas, NV, June 2-6

Visit us for latest Crossfire update. To schedule  
meeting email: rene@fract-tech.com

### EMBEDDED ADVISOR 2019 TOP 10 IP SOLUTION PROVIDERS



To help clients choose IP core vendors that are most suited for their requirements, Embedded Advisor brings forth a competitive list of the best IP core solution providers. A distinguished panel comprising of eminent CEO's, CIO's, VC's and analysts, along with Embedded Advisor's editorial board has assessed several solution providers and shortlisted the ones that are revolutionizing the IP Core industry. We present you "10 most promising IP Core Solution Providers-2019".

[Click link to read article](#)

### CROSSFIRE UPDATES

Recent Crossfire improvements:

- Support for Python 3.7
- New Formats, Rules and Features:
  - APL Switch support
  - APL Pratio support
  - Naming collision check between the cell name and instance and terminals
  - Moment based LVF table presence check
  - Generic table value range check
  - Ocv\_sigma value should be a percentage of the nominal value
  - Check for ratio between input noise and propagate\_noise
  - SPEF vs SPEF structural comparison
  - SDF versus SDF check
  - Check some IPxact attributes values

### 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.

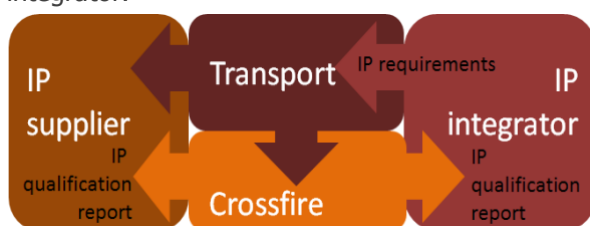
### CROSSFIRE USABILITY FEATURES

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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