

## QUALITY OF HARD IP

Blog on SemiWiki by Bernhard Murphy

I was CTO at Atrenta, home of SpyGlass, for many years before the company was acquired by Synopsys, so I know a thing or two about IP quality, to paraphrase a popular commercial. The problem is that even in the best-run IP shops, errors happen. Sometimes they happen on simple changes, especially when you think "This IP has been very carefully checked and the change I just made is so small it won't affect anything". They also happen in configurable IP, especially near architecture transitions where not all possible configurations have been comprehensively validated.

For full blog please click link below

[SemiWiki article on Quality of Hard IP](#)

## CEO INTERVIEW ON SEMIWIKI

Interview by Dan Nenni

Fractal is another one of those very successful emerging EDA companies that you don't read a lot about, except on SemiWiki. Rene Donkers is co-founder and CEO of Fractal Technologies, a company addressing IP quality assurance. This is a niche in the SoC tooling market that deserves some justification. Why not use an IP as-is if it comes from a trusted vendor? And if IP needs to be checked – why would you need yet another tool to do so?

For full interview please click link below

[SemiWiki CEO interview](#)

## CROSSFIRE UPDATES

Recent Crossfire improvements:

- New Rules and Features:
  - Set lower upper/bound for input slew indices
  - Merge multiple libraries in OpenAccess
  - MilkyWay parser speed up
  - New HTML reporter, faster, more functionality, less memory and CPU usage

## BEST WISHES FOR 2017

In 2016 we managed to achieve our goals and established record high company sales. We will continue to work closely with existing and new customers to add features and functionality to our Crossfire tool. We are convinced that 2017 will be another great year for our company.

Success in Business is great but let's not forget the important things in life. We wish you all a healthy and prosperous 2017; enjoy Christmas and New Year with family and friends.





## 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.

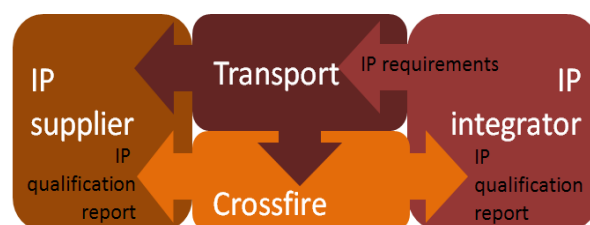
## CROSSFIRE USABILITY FEATURES

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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