



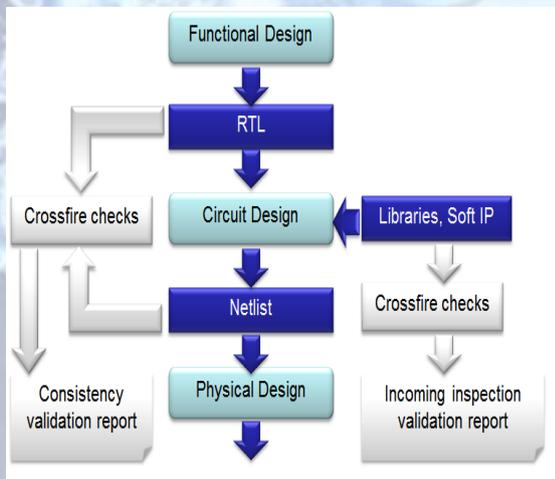
NEWS LETTER

February 2014

Correct by Construction Design Using Crossfire

A Fractal Whitepaper

State of the art SoC design needs to rely on a correct-by-construction principle for the design creation flow. The increasing number of components from different suppliers and the amount of process corners that need to be covered lead to an explosion in both data-volume and data-variety. Crossfire can help in achieving a working design within a predictable flow by ensuring that every design step is validated and every imported IP-component is qualified. The different positions where Crossfire can anchor design flow quality are presented in this paper as QA related Frequently Asked Questions.



Crossfire usage inside the design-flow as well as for incoming inspection

[Click here to read Crossfire White Paper on usage](#)

Fractal expands Crossfire with new setup API

The setup API can be used to create fully customized Crossfire setups. Setup API is available in Python, Perl and TCL.

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Visit Fractal at DAC 2014, booth 507, San Francisco, June 1-5

[DAC 2014](#)

Crossfire Updates

Recently Crossfire has been improved in various areas:

- Diagnose tool released ([video](#))
- Improved waiving system ([video](#))
- HTML & CSV reports per format. Jumps to error on click
- Parsers speed-up:
 - GDSII: 1 time parsing + speedup 10x
 - SPICE: Speedup up to 10x
- New rules added:
 - Arc presence check
 - Check for obsolete tables
 - Power down function check
 - Related power pin check
 - STD cell pin access check for ungridded design



About Crossfire

Crossfire reports mismatches or modelling 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 because of:

- 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
- Generic setups

Crossfire integration features

API for creating database independent checks, available in: Perl, Tcl and Python
Existing customer validation scripts can be integrated

Visualisation 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

About Fractal Technologies

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

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