Jivaro Pro

Advanced Parasitic Reduction

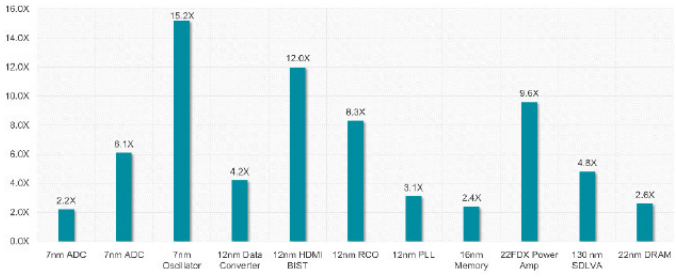
Overview

Jivaro Pro is a unique, stand-alone solution dedicated to the reduction of parasitic networks. Jivaro Pro helps back-end verification teams speed up post-layout SPICE simulation of huge extracted parasitic circuits, while maintaining high accuracy. Jivaro Pro has proven to accelerate circuit simulation up to 15X faster, while preserving high accuracy.

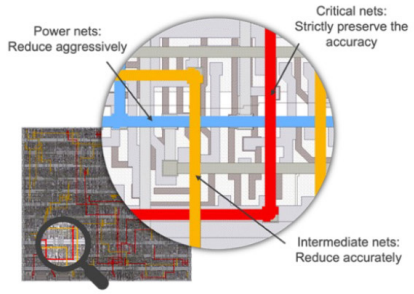
Jivaro Pro has been adopted at leading IDM and fabless companies worldwide for technology nodes down to 2nm. Jivaro Pro applies a patented mathematical approach to perform MOR to reduce parasitic complexity. In contrast to rules-based methods, Jivaro Pro allows designers to trade-off between accuracy and reduction, with the user controlling the benefits.

Jivaro Pro has no dependencies on the extraction and simulation tools utilized and can plug directly into any design flow. Jivaro Pro contains a full set of parameters that enable broad control over speed and accuracy results. To enable fast implementation and ease of use, Jivaro Pro includes an automatic mode capability that adapts and optimizes to your design environment. Jivaro Pro can be applied with different thresholds on different parts of the design, both net-level and block-level, to optimize reduction. It can also offer more through the reduction of the number of active devices. All types of extractions are supported, even large power networks.

Jivaro Pro Simulation Acceleration



Targeted Reduction – Net and Block Level



Features

- Reduce R, RC, RCC, RLC, RLCK, controlled sources
- Reduce temperature-dependent parasitic networks and multi-corner extracted netlists
- Selective reduction on nets, sub-circuits, or any path within the hierarchy
- Merge multifinger active devices and remove dummy structures
- Automatic reduction mode triggering advanced features

Benefits

- Speeds-up post-layout SPICE simulations (up to 15X) and even enables them for the toughest cases
- Seamlessly integrated into existing flows thanks to a plug-n-play solution
- Adapts the reduction to the accuracy objectives.
- Allows to improve the accuracy by including power nets and metal fills to the extraction without compromising the simulations runtime

Inputs

- DSPF
- SPEF
- SPICE
- CalibreView parasitic netlists
- OA extracted views

Platform Support

- Red Hat Enterprise Linux 7.9, 8.X: x86_64
- SLES12 (SP5): x86_64

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