Mirabilis Design’s Power Analyzer library enables designers to simulate use cases and measure the power consumed by the memory, SoC and other hardware components.

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VisualSim Power Analyzer generates cycle-accurate power measurement for SoC, memory and systems from a system-level model

**Highlights:**

- Power measurement at the system-level with VisualSim provides designer the ability to refine their architecture for higher performance with longer battery life
- Instantaneous and Average power consumption reports of individual resources and full system

**Sunnyvale, CA - March 14, 2016** - Mirabilis Design Inc., an Electronic System-Level Modeling and Simulation Company, announced the immediate availability of the VisualSim Power Analyzer library. The VisualSim Power Analyzer is the first use-case driven power analysis software for both systems and semiconductors. The power equations and state-machine are fully integrated into all the major library blocks in the VisualSim Architect hardware library. The system model can be used to experiment with power management schemes, scheduling algorithms, buffering, power gating, system-level decisions (burst length to memory, redundant systems and topology) and arbitration. VisualSim users in consumer electronics have been able to achieve 98% accuracy using baseline analytical data from the supplier.

“Architecture exploration is first power consumption vs. application latency trade-off and cost later,” says Deepak Shankar, Founder of Mirabilis Design. “At Mirabilis Design, we have taken complex combination of equations, solvers and dynamism into a collection of parameterized blocks, thus enabling any engineer to get results quickly.”

“System Level Power Modeling helped our customer to both select right architectural components, and capture faults in power gating algorithm that was causing a 20% hike in Power consumption” adds Darryl Koivisto CTO of Mirabilis design.

Current generation power analyses are restricted to spreadsheets with use-cases as the columns and the rows as the devices, or power modeling at RTL/Gate Level. The former provides average power consumption values and the latter helps to make implementation decisions and not architectural decisions. VisualSim creates a major step in system design by migrating from analytical to dynamic power computation, add more power metrics, gain visual insight and create better quality products. The Power Analyzer library enables designers to add power attributes via a spreadsheet in an existing system-level model in VisualSim. There is no change required in the model and the table can have the list of components, power for different states, transition times and the power for leakage, static and dynamic
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levels. The Power Analyzer has a set of configurable parameters that can be used to control the types of reports, vary the power levels for devices during the simulation, incorporates new devices dynamically and create system degradation situations. The rechargeable battery blocks has over 10 recharge mechanisms including solar and motor. The Analyzer provides multiple power and energy related views for better understanding of the power consumption.

Webinar:

To help and educate, Mirabilis Design Inc. is conducting a webinar - ‘Is accurate system-level power measurement challenging? Check this out!’ on 16th March at 11 am CET & 11 am PST/ 2 pm EST. In this webinar, Deepak Shankar would demonstrate how system-level modeling and measurement work with real-life examples. Click here to register.

Availability:

VisualSim Power Analyzer library is available now at $5,000 and requires VisualSim Architect. The product is supported on Windows, Linux and Mac OS/X.

Image of Power Analyzer library is available at:  
http://www.mirabilisdesign.com/Resources/Images/Power_Modeling.png

Click here to access Simulation model of a System level Power vs. Performance trade-off analysis of Multimedia SoC platform.

Click here to access Simulation model for State based power exploration of a Communication system.

About VisualSim Architect:

VisualSim Architect is a system-level modeling, simulation, and analysis environment with a wide-ranging set of libraries and application templates that significantly improve model construction and analysis time. The environment enables designers to rapidly converge to a design which meets a diverse set of interdependent time- and power requirements. Additional information is available at:  
http://mirabilisdesign.com/new/visualsim/

About Mirabilis Design:

Mirabilis Design is a Silicon Valley company, providing software solutions to identify and eliminate risk in the product specification; accurately predict the human and time resources required to develop the product; and improve communication between diverse engineering teams. Additional information is available at: http://mirabilisdesign.com/new

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