

Fedora introduces a Fabless Semiconductor Simulation Platform.

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In the semiconductor industry, integrated circuits are realised in a foundry. However the financial strength needed to invest in building such foundry is way beyond one's imagination. Engineers are focusing on the design and outsourcing the actual manufacturing, by opting a fabless business model. Nevertheless, the deployment of a complete VLSI¹ simulation platform still remains a difficult and painful process for these microelectronic engineers.

The Fedora Project proved itself once again as the leader in innovative open source software development by introducing its Fedora Electronic Laboratory² (FEL). The latter will strive to lighten the work load of electronic engineers who should only care about their cutting edge technologies rather than wasting time on software deployment.

For the next stable release “Fedora 8”, which will be released on 8th November 2007, FEL targets mainly the Micro-Nano Electronic Engineering field, by introducing:

- adequate and mature tools for ASIC³ Design Flow processes,
 - Analog/Digital Simulation and Circuit Simulations.
 - Hardware Development - Modeling, Designing, Simulation, Synthesis and Verification.
 - VLSI (layout, schematic, synthesis, Finite State Machines, checks...)
 - Embedded Systems Development.
- seven extra open source standard cell libraries supporting a feature size of 0.13µm,
- extracted spice decks which are simulated with any spice simulators and
- interoperability between various packages in order to achieve different design flows.

FEL will be shipped as a LiveCD edition and through the automated RPM package management to simplify the deployment of such VLSI simulation platform. The Live image will also entail project implementation tracking capabilities tools, such as assigning tasks, resources and issues.

Fedora Electronic Laboratory, an ambitious project, is designed to be a complete electronic laboratory setup with reliable open source design tools to keep engineers in pace with current technological race.

¹ VLSI : Very Large Scale Integration, about 10⁶ to 10⁷ transistors per chip.

² Fedora Electronic Lab: <http://chitlesh.fedorapeople.org>

³ ASIC : Application-Specific Integrated Circuit.