When Should We Adopt Open Access?

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Outline

- What is OpenAccess?
  - How can it help you?
  - The forces behind OpenAccess
- Should you consider adopting OpenAccess?
- What materials are available now?
  - Strings attached?
  - How new and stable is OpenAccess?
- Expected developments in the near future
What is OpenAccess?

“The Next Big Thing in EDA”™
- 1,484 downloads from 125+ companies (by Jan 25, 2002)
- It’s an API with a database that implements it
  + implicit data model
- It’s the Cadence Genesis database
  - Distributed in source code, for free, with utilities and docs
    (at least, that’s the idea 😊)
  - Maintained and actively developed by SI²
    (independent non-profit organization)
- Developers are affiliated with a number of EDA companies
- Goals: simplify EDA tool R&D and improve interoperability
How Can OpenAccess Help You?

- An opportunity to outsource development
  - Modern open-source high-performance VLSI database
  - Apparently, high-quality code + fast application development
  - New versions (should) appear regularly; you can contribute

- A common standard (compatible with LEF/DEF)
  - Some new hires may already know it
  - No fear of losing people with critical knowledge

- Improved interoperability with other EDA groups
  - If company Z offers a good tool, you can try /use it easily
  - This should help everyone except for “whole flow” companies
Should You Consider Adopting OA?

- **Yes**, if your own VLSI database is
  - Inadequate in terms of functionalities, capacity, robustness, API or data model
  - Insufficiently supported due to lack of human resources
- **Yes**, if your tools do not talk to each other (see above)
- **Yes**, if your customers want it
- **Yes**, if your EDA vendor is adopting it
- Otherwise, **maybe**
  - if you just do not want to miss the boat
The Forces Behind OpenAccess

- IBM, HP, TI, Motorola, LSI Logic, etc.
  - see affiliations of contributors to OpenAccess documents
- In theory, one should watch out for
  - politics / power struggle
  - …or at least some controversy
- But none can be deduced from Web pages so far
  - Observation: Cadence is the only sponsor of the OA conf.
What Materials Are Available Now?

- Main download site: [http://www.openeda.org](http://www.openeda.org)
- Specs and documentation
  - OpenAccess Specification V1.2.01
  - OpenAccess Utilities V1.2.02
- Binary packages for HP-UX 11 and Solaris 2.7
  - OpenAccess 1.2
- Examples
- Source code (OpenAccess 1.2)
Strings Attached?

- Open Access Internal Use License
  - Currently, version 1 dated February 4, 2002
  - Different from the OpenEDA license
- You can use, copy and modify the OA software for free
  - For internal purposes (no academic restrictions)
- You cannot redistribute the OA software
  - Instead, must contribute your changes to SI² (in source and binary) and lose all rights to them
  - SI² may not include your contributions into releases
How New and Stable Is OpenAccess?

- First public release of C-API specifications and API headers on **June 18, 2001**
- First binaries released on **Oct 12, 2001**
- First implementation code released on **Feb 4, 2002**
- Source code roadmap announced on **Feb 8, 2002**
- Big development in April: **OpenAccess version 2**
  - “the official version backed by the OpenAccess Coalition”
  - Fundamental changes in data model, modularity, coding standards
  - Source code will not be available until the fourth quarter of 2002
Expected Developments

- The OpenAccess Conference, April 22-23 in SJ
  - “get the OpenAccess version 2 specification FIRST”
    (a banner ad talking about the API reference document)

- OpenAccess version 2
  - Unlike version 1, was originally developed for public use
  - Will integrate digital and analog circuits
  - First public release of binaries and source code planned in “early first quarter of 2003”
Discussion

- Does anyone have additional information on OA?
- Has anyone in the audience downloaded OA?
- Are people going to?
- What do you think of OA so far?