openLCA – implications of an emerging open source software

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Outline

1. Idea for an open source sustainability assessment software
2. Status: Project, technique, user interaction
3. A contributing community?
4. Case studies
5. Outlook

Two Key ideas:

1. Create
   - open source,
   - freely available,
   - flexible,
   - high performance
   software for sustainability assessment
   (environment; cost; social aspects)

2. Build a community of users and contributors
Benefits

1. Access to other open source software → flexibility & fast progress
2. No hassle with software licence sales, and licence control → lots of new applications and use schemes
3. Flexibility in software creation and application (in fact, strict distinction between software user and software developer disappears)

Sustainability

(three aspects: Environmental, economic, social)

Initial focus:
Life Cycle Assessment, of products, over their entire life cycle (resource extraction, production, use, disposal)

As laid down in ISO 14040/14044 standards

Status: Selected techniques

- IT: Eclipse/Java
   (Rich Client Application, modular and flexible), MySQL database

- Collaboration website, server, repository: www.openlca.org

- Additional Sourceforge site for file releases
3. A contributing community?

**External Contributions**

**Sylvatica** (US, Maine): Implement jointly an interface of openLCA to Earthster, an open source tool for optimising supply chains re sustainability.

Sponsored by TheGreenStandard.
External Contributions

Not more since

- people that care about the environment AND know how to program are scarce (!)
- no public release yet

4. Case studies

Current case studies
- welding shop, example used in VDI 4090 working group
- board game, French company (small), producing environmentally friendly games
- renewable energy datasets (+probably more), currently validated and implemented for German EPA,
- Environmental Product Declarations in furniture industry, US, proj. by TGS
- photovoltaic cells, as modelled by ECN Netherland

Photovoltaic cells, ECN
..to be demonstrated live..
5. Outlook

- very soon: Public release (!)
  if you are interested: send an email or talk to us
- uncertainty module, parameters, other refinements: Until winter 2008
- hopefully broad application and a variety of uses

Outlook

Public release of the LCA application will definitely be a large step. We look forward to the feedback this will generate.

Obviously, if you have questions re
- Funding consortium,
- specific applications,
- contributions
Then please do contact us.

Vielen Dank!

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