What's new in SimaPro 8.1

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1 Introduction

This document describes the changes in the SimaPro 8.1 software and database.

SimaPro 8.1 now includes a new function allowing an ILCD export function and the inclusion of ELCD version 3.1 offers you improved modelling capabilities when working with EU Product Environmental Footprint standards (PEF).

A major update of the Agri-footprint library is included for all users. North American regional data needs are better addressed in SimaPro 8.1 with US-LCI datasets and the TRACI 2.1 method updates.

Furthermore, we brought the EULA in line with the recent market launch of SimaPro Share and Collect extensions. Share & Collect make it easier for you to coordinate data collection surveys and publish interactive LCA based "what if" scenario results online.

We trust that the 8.1 release offers you improved SimaPro software functionality and enhanced contents in various data libraries that you are looking for.

2 Updated data libraries

2.1 Agri-footprint® v2.0

A major update to Agri-footprint® v2.0 is included in SimaPro 8.1. This new version of the Agri-footprint® contains more than 800 new and over 800 updated agricultural products and activities with extended international coverage. In addition, a number of new categories were added to better organize the agricultural products. The data is designed with PEF readiness in mind and has been subject to critical external review by RIVM.

- Crop-country expansion and upgrades
- Pulse cultivation and processing
- Rice cultivation and processing upgrade
- Cattle compliant to PEF approach
- New food processing LCIs
- Meatless
- Includes Land Use Change tool 2.0 data
- ILCD data quality integration

2.2 ELCD 3.1

The PEF relevant ELCD library has undergone significant updates in version 3.1. The new version includes 170 new processes/products, mainly electricity and steam, but also fossil fuels, copper, etc.
Focus of the new release of ELCD is laid on data quality, consistency, and applicability. Many ELCD 3.1 datasets have been reviewed against the ILCD entry-level data quality requirements in order to provide quality-assured LCI data. 190 ILCD entry-Level compliant datasets can currently be found in the ELCD 3.1.

2.3 US LCI

The US LCI library has been updated to the latest version. Importing the individual new or updated dataset directly in SimaPro proved problematic, because of many inconsistencies. We therefore decided to begin "from scratch" and convert all processes again to get a consistent dataset.

Please be advised that the US LCI library contains "dummy" processes. It is advised to use proxy data from other sources to bridge these gaps. The original database download contained errors in nomenclature and many of the known problems have been corrected. Documentation in the US LCI database is limited. This database has been included in SimaPro because it contains value to users, but please proceed with caution and check for "dummy" processes when using this database.

With this update it was not possible to replace all processes 1:1 with the updated processes. We have decided to import multiple output processes as such, whereas previously we converted these to multiple single output files (some of which were empty). This means that some processes had to become obsolete and a new multiple output process is created. SimaPro however cannot replace 4 processes with the same process during the import database procedure. To ensure that you link to the new processes and thus get the correct results, you need to check for any links that need replacement. PRé created a special replacement file to allow you to change the links in your project to the correct processes automatically. How to use this file is described in the update instructions.

A number of processes in the previous database were empty and were not labeled dummy. These processes were moved to obsolete folder.

2.4 Industry Data 2.0

We have corrected some errors in the amounts of some water flows in a number of processes:

- Polyoxymethylene (POM)/EU-27
    - Water, cooling, unspecified natural origin/m3 | 19651 m3 --> should be 0.019651 m3
    - Water, unspecified natural origin/m3 | 638.39 m3 --> should be 0.00063839 m3
- Polyamide (Nylon) 6.6/EU-27
    - Water, cooling, unspecified natural origin/m3 | 30000 m3 --> should be 0.03 m3
    - Water, unspecified natural origin/m3 | 1699.6 m3 --> should be 0.0016996 m3
- Polyamide (Nylon) 6/EU-27
    - Water, cooling, unspecified natural origin/m3 | -163000 m3 --> should be -0.163 m3
    - Water, unspecified natural origin/m3 | -78485 m3 --> should be -0.078485 m3

3 Changes in impact assessment methods & substances

The most important changes in impact assessment methods are listed below. For details, please see the comment section of the individual methods in SimaPro.

- TRACI 2.1
  - o Normalization factors updated to reflect previous update to method in version 1.02.
  - o Removed characterization factor for Nitrogen to air (this flow means atmospheric nitrogen, which has no eutrophication impact).
- ILCD Midpoint 2011
  - o Added Nitrogen substance to the marine eutrophication category of ILCD 2011 Midpoint+ method with same characterization factor as in ReCiPe
    - Update version number of method
    - Add comment describing update
  - o Normalization factors for cancer and non-cancer were corrected. In version 1.06, the values were switched.
- EPD (2013) and CML-IA baseline
  - o Removed characterization factor for Nitrogen to air (this flow means atmospheric nitrogen, which has no eutrophication impact).
- Changed the name of the Nitrogen flow to air to "Nitrogen, atmospheric" to avoid confusion with elemental nitrogen.

4 Software features

An overview of the most important new software features and bug fixes:

4.1 New function: Export to ILCD

To make PEF related data exchange easier for users we offer a first version of the ILCD export function. In the SimaPro Analyst, Developer and PhD versions, users can export core inventory data in ILCD format. We have created an extensive mapping file to ensure correct conversion of substance names, subcompartments, units and other items to the ILCD guidelines. We will improve this mapping file as more documentation from JRC becomes available.

Instructions on using the ILCD export feature are found in the Help file.

We are eager to get your feedback to set priorities in this area and have chosen to release this function to allow for your input.

4.2 Improvements & fixes:

- Included basic support for document and weblinks in the process editor. This field can be used in combination with the ILCD export function.   It does not have a browse feature yet.
- Improved support for multiple-output processes

- Improvements to the "Compare Methods" feature
- Increased number of scenarios that can be included in a calculation setup
- Many smaller fixes and improvements have been implemented.

5 Contact us

Please contact us or your local partner if you have questions about new features in the SimaPro software or database, or if you have any other questions related to the update.

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