SimaPro 9.2

What's new?



Title: SimaPro 9.2 | What's new?

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About SimaPro

SimaPro was developed by PRé with the goal of making sustainability a fact-based endeavor. PRé has been a leading voice in sustainability metrics and life cycle thinking development for nearly 30 years, pioneering the field of environmental and social impact assessment. We develop tools that help you create value and drive sustainable change.



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1 Introduction

This document describes the changes in the SimaPro 9.2 software and database (compared to the previous release). The focus of the release has been on data and impact assessment methods - ensuring quality, consistency, and accuracy, not only in SimaPro desktop but also aligning it with the SimaPro online platform. In addition, a number of improvements and fixes have been implemented in the software.

We hope you have a smooth experience updating to SimaPro 9.2 and feel free to <u>reach to us</u> for feedback and further suggestions for improvements!

2 Software updates

General improvements and bug fixes include:

New version of Report Maker (Report Maker 3):

This version provides improved compatibility with more recent Office versions (like Office 365). It also adds minor functionalities and presents our new branding. Updating to Report Maker 3 from Report Maker 2 is considered optional and will be most relevant if you had previous installation issues with Office 365. Please refer to the Installation Manual and User Manual for further information.

New mapping | Export to ILCD:

PRé has developed new mapping files for users to export data from SimaPro desktop to ILCD. There are four mapping files - two variations depending on purpose, and each has a version for EF 2.0 and EF 3.0. The "variation" you use depends on which purpose you need it for. Extensive information about the different mapping files and instructions on how to use them is available in the export guide.

Please note that this feature is only available for Expert & Power user packages (SimaPro Analyst, Developer) and SimaPro PhD.

• Enhanced alignment with the SimaPro Online Platform:

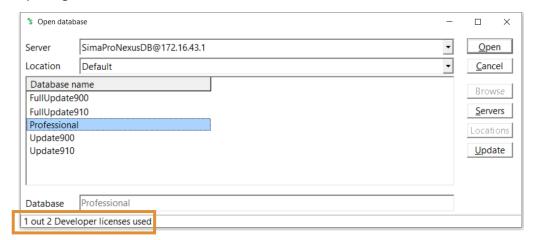
The Export to Platform function has been improved such that database parameters are excluded from the exported CSV file. This means if you use database parameters in your model, you will have to add these manually in Flow, as they will not be included in the exported desktop model. Furthermore, users can now export excluding library processes to minimize file size.

- Silent installation for all SimaPro installers is now possible.
- A cloud storage warning message has been added in the installers and when selecting a database.
- Auto update expression results is now also shown in the menu of the main window.
- Bug fix for libraries not correctly shown in calculation setup after change of a product.

Show red label for sample size when editing Pedigree.

In addition, a number of improvements have been implemented specifically for **multi-user installations**:

- Minimizing the database server will no longer close application.
- Bug fix: the database server has a visible icon again when minimized in the in the taskbar.
- Bug fix: when editing/deleting a record for a user it will be cast to all other users
- Bug fix: add copied project to the Managers list of projects
- Show users connected to a SimaPro database server when selecting a database (before opening the database).



3 Data library changes

3.1 ecoinvent 3.7.1

Includes more than 900 new and 1000 updated datasets, including more than 100 new products. This update expands the coverage of the database in various sectors such as:

- Metals
- Fertilizers
- Forestry and wood
- Packaging materials
- Waste/recycling, and biogas supply chains
- Electricity market mixes

ecoinvent 3.7.1 (released in December 2020) corrects a critical issue (in v3.7) regarding the iron sinter production dataset and includes an update of the zinc mining dataset. For further details on the updated ecoinvent 3.7.1 content, please refer to the ecoinvent website.

3.2 Update of World Steel data in Industry data 2.0 library

In 2019, the World Steel Association released the 5th update of its life cycle inventory datasets. The <u>report</u> documenting it contains global and regional LCI data for 16 steel products (see table below).

Product category	Manufacturing route	List of products
Long	Basic oxygen furnace route and	Sections
products	Electric arc furnace route	Rebar
		Wire rod
		Engineering steels
Flat	Basic oxygen furnace route and	Plate
products	Electric arc furnace route	Hot rolled coil
		Cold rolled coil
		Pickled hot rolled coil
		Finished cold rolled coil
		Electrogalvanized steel
		Hot-dip galvanized steel
		Tin-free steel(ECCS)
		Tinplated products
		Organic coated steel
		Welded pipes
		Seamless Pipe

The implementation in SimaPro includes 45 datasets updated for 1 kg of steel products at factory gate (cradle-to-gate) modelled for 3 regions: Global, Asia, and Europe. These 45 updated datasets are added to the Industry data 2.0 library.

3.3 Library alignment with SimaPro online platform

The following data libraries will soon be available on the SimaPro online platform (aligned with SimaPro desktop): Agri-footprint 5, ecoinvent 3.7.1, Industry data 2.0, and USLCI. Processes in those libraries (in SimaPro desktop) now also contain SimaPro platform IDs which to facilitate the exchange of data between SimaPro desktop and online platform.

Please note that a database update is needed for changes to take place.

3.4 Data libraries no longer supported

Two data libraries will no longer be supported in SimaPro because they are outdated and no updates are foreseen:

- The <u>ELCD</u> (the European reference Life Cycle Database) has been discontinued by the European Commission since June 2018.
- The Swiss input-output database has not been updated since 2005.
- Agri-footprint 4 (since SimaPro 9.1.1)

New SimaPro users will not receive these data libraries. Existing users will not receive updates of these libraries.

4 Changes to impact assessment methods

For more details on each method, please see the comment section of the individual methods, or the methods manual in SimaPro (via Help > Data Manuals > Methods Manual).

4.1 New | IMPACT World+

<u>IMPACT World+</u> is a comprehensive and globally regionalized life cycle impact assessment method. This method is the update of the IMPACT 2002+, LUCAS, and EDIP methods.

IMPACT World+ is based on a midpoint-damage framework with four distinct complementary viewpoints to present an LCIA profile (see Figure 1):

- Midpoint impacts,
- Damages impacts,
- Damages on human health, ecosystem quality, and resources & ecosystem services areas of protection,
- Damages on water and carbon areas of concern.

Most of the regional impact categories have been spatially resolved and all the long-term impact categories have been subdivided between shorter-term damages (over the 100 years after the emission) and long-term damages.

The implementation in SimaPro is based on version 1.29 (midpoint) and 1.47 (endpoint) of the original method and it includes:

- Only recommended (not interim) indicators,
- Partial regionalization any regionalized flows, which would be new to SimaPro, were not
 included in this implementation. This is because they are not used in the inventories and
 would give false impression of contributing to the results. For fully regionalized version of
 the method, please use SimaPro Flow,
- Damage on areas of protection (human health and ecosystems quality), not areas of concern (water and carbon).

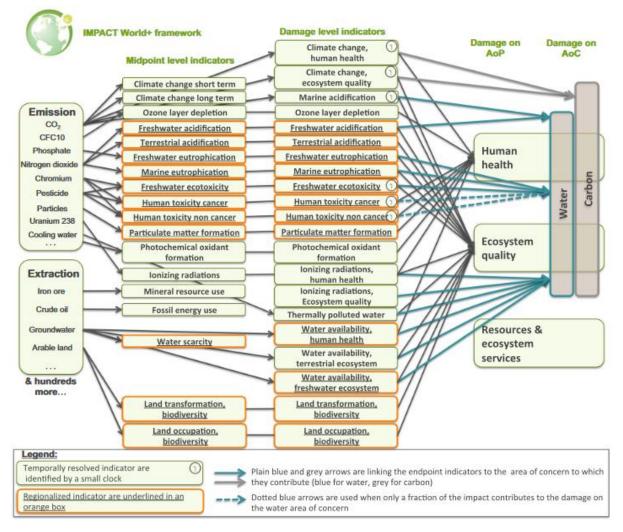


Figure 1: IMPACT World+ framework

4.2 Correction of ReCiPe 2016 normalization

The method developers of ReCiPe 2016 requested the correction of normalization factors for toxicity impact categories included in SimaPro. This affects the normalization factors:

- At midpoint level for
 - Human carcinogenic toxicity
 - Human non-carcinogenic toxicity
 - Terrestrial ecotoxicity
 - Freshwater ecotoxicity
 - Marine ecotoxicity
- At endpoint level for
 - Human health
 - Ecosystems

This modification will lead to a lower contribution of toxicity impact categories in normalized, weighted, and single score results compared to previous results with the same method.

4.3 Methods' update to include new water substances

Most impact assessment methods containing water flows were updated to include new regionalized water substances. For these, the list of characterization factors was extended to include new geographies included in the ecoinvent 3.7.1, primarily for sub-national regions of Brazil, India, and the US.

The updated methods are:

- AWARE
- BEES+
- Cumulative Exergy Demand
- Ecological Scarcity 2013
- EF Method (adapted)
- EF 3.0 Method (adapted)
- EN 15804 + A2 Method
- Environmental Prices
- EPD (2018)
- Hoekstra et al 2012 (Water Scarcity)
- Motoshita et al 2010 (Human Health)
- ReCiPe 2016 (all midpoint and endpoint versions)

4.4 Superseded

A number of methods were moved to the Superseded section and will no longer be maintained:

- EDIP2003
- ILCD 2011 Midpoint+
- IMPACT 2002+
- Ecosystem Damage Potential
- Ecological scarcity 2006 (Water scarcity)
- Pfister et al 2009 (Eco-indicator 99)
- Pfister et al 2009 (Water Scarcity)
- Pfister et al 2010 (ReCiPe)

Most of these have been replaced by other method updates. The new method to be used is clearly documented in the comment of the superseded method, e.g. IMPACT 2002+ is to be replaced by IMPACT World+.

5 Contact us

We hope you have a smooth experience updating to SimaPro 9.2! Please contact us or your <u>local</u> <u>partner</u> if you have questions about these changes in the SimaPro software or database, or if you have any other questions related to the update.

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