FC-Hy Guide

Training Course

Thurs. 1st September 2011, Berlin

Seminaris

Campus Hotel

Berlin

FC-Hy Guide

Data sets in ILCD format

ILCD data sets - overview

- The ELCD database and upcoming ILCD data sets (data network) are in XML format
- Extensible Markup Language (XML) is a set of rules for encoding documents in machine-readable form
- It is an free of charge open standard
- Can be entered also directly by programming without any tools

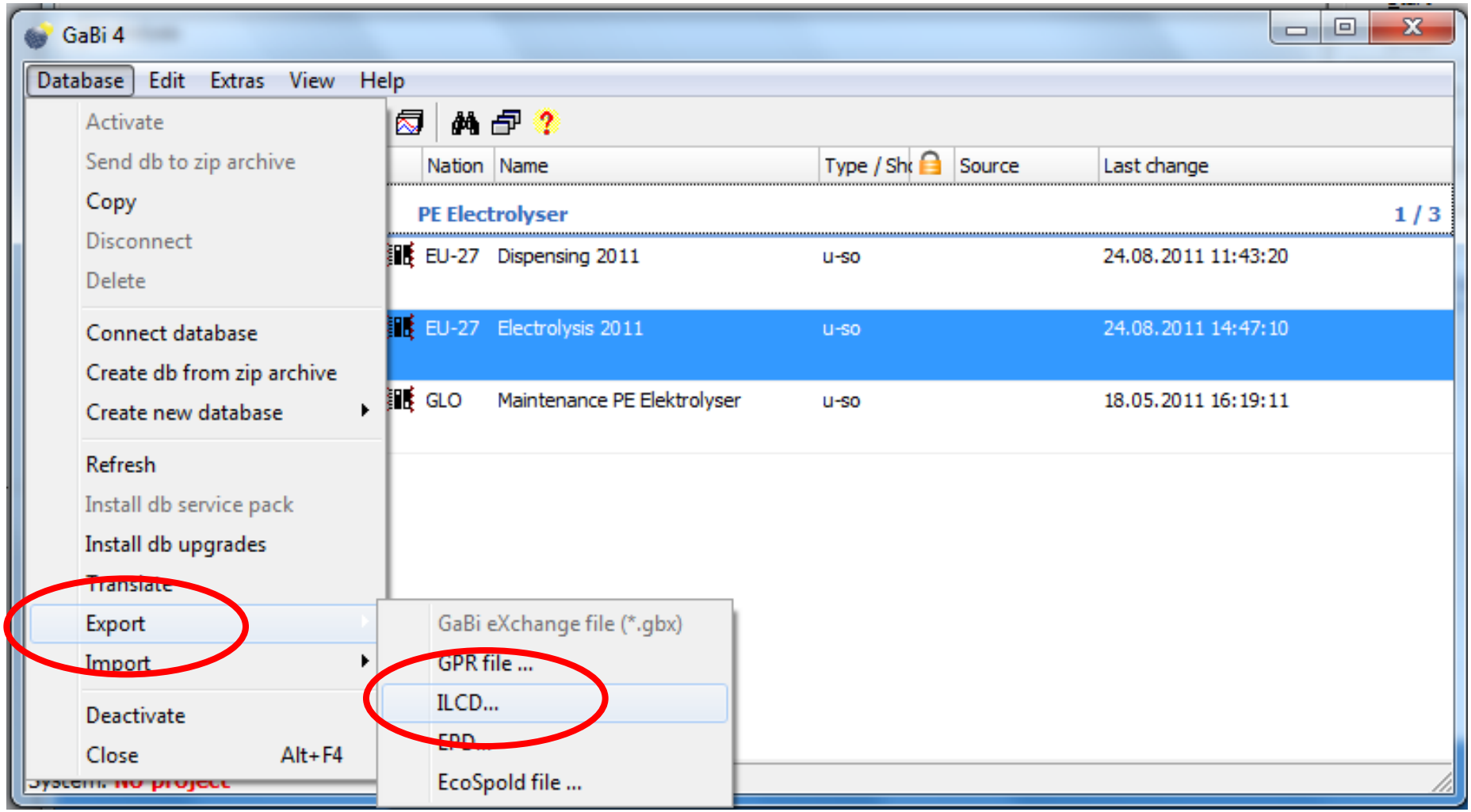
Example of an existing ELCD data set

Process data set: Electricity Mix; AC; consumption mix, at consumer; < 1kV (en)	
Table of Contents: Process information - Modelling and validation - Administrative information - Inputs and Outputs	
Process information	
Key Data Set Information	
Location	EU-27
Geographical representativeness description	The data set represents the country / region specific situation, focusing on the main technologies, the region specific characteristics and / or import statistics.
Reference year	2002
Name	Base name; Treatment, standards, routes; Mix and location types; Quantitative product or process properties Electricity Mix; AC; consumption mix, at consumer; < 1kV
Use advice for data set	Use by low voltage electricity customers without own electricity generators or transformers (e.g. at SME and private), which use electricity directly from the grid. The data set can be used for all LCI/LCA studies where electricity is needed.
Technical purpose of product or process	Low voltage (<1kV) electricity for final consumers.
Synonyms	power grid mix
Classification	Class name / Hierarchy level Energy carriers and technologies / Electricity
General comment on data set	Good overall data quality. Energy carrier mix information based on official statistical information including import/export. Detailed power plant models were used, which combine measured emissions plus calculated values for not measured emissions of e.g. organics or heavy metals. Energy carrier extraction and processing data is of sufficient to good (e.g. refinery) data quality. Inventory is partly based on primary industry data, partly on secondary literature data.
	Copyright? Yes Owner of data set (contact data set) PE INTERNATIONAL
Quantitative reference	
Reference flow(s)	electricity mix; AC; consumption mix, at consumer; < 1kV - 3.6 MJ (Net calorific value)
Time representativeness	
Data set valid until:	2010
Time representativeness description	Annual average
Geographical representativeness	
Technological representativeness	

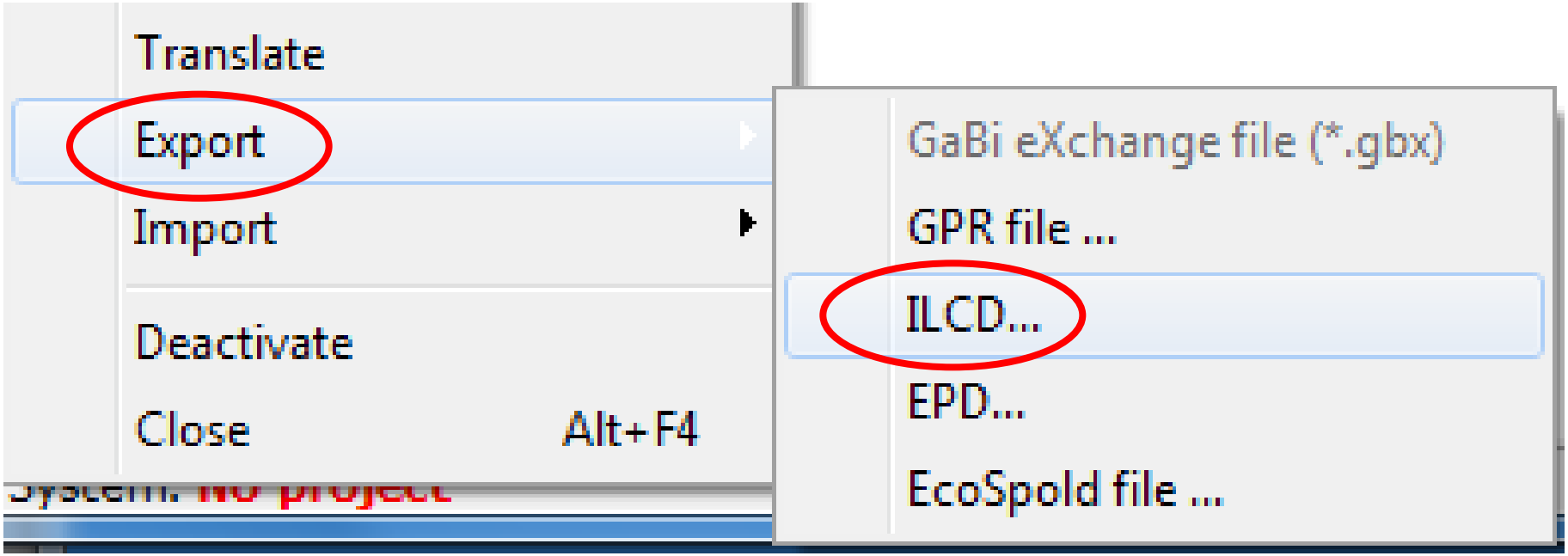
Example of an existing ELCD data set

```
<?xml version="1.0" encoding="UTF-8"?>
- <ecoSpold
xsi:schemaLocation="http://www.EcoInvent.org/EcoSpold01 ../../../org.openlca.ecospold/src/org/openlca/ecospold/proc
" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.EcoInvent.org/EcoSpold01">
  - <dataset validUnits="" validRegionalCodes="" validCompanyCodes="" validCategories="" timestamp="2001-12-31T12:00:00" nu
      - <metaInformation>
          - <processInformation>
              <referenceFunction infrastructureProcess="false" infrastructureIncluded="false" datasetRelatesToProduct="true" locals
                  components" localCategory="photovoltaic" subCategory="production of components" category="photovoltai
                  emissions aggregated to protect sensitive data. Data 2005 calculated from data 2004 by multiplying amo
                  factor of 156*156/(125*125) = 1.56; energy scaled linearly with cell length. " unit="p" amount="1" localN
                  name="Multi-crystalline silicon cell"/>
              <geography text="Europe, Western" location="GLO"/>
              <technology text="Average technology"/>
            - <timePeriod text="" dataValidForEntirePeriod="true">
                  <startYear>2005</startYear>
                  <endYear>2005</endYear>
              </timePeriod>
              <dataSetInformation timestamp="2008-09-03T11:01:00" version="1.0" type="1" localLanguageCode="en" language
                  impactAssessmentResult="false" energyValues="0"/>
          </processInformation>
          - <modellingAndValidation>
              <representativeness samplingProcedure="Average from 5 specific processes and companies (4 multi + 1 mono).
              <source title="Environmental impacts of PV electricity generation - a critical comparison of energy supply opt
                  Solar Energy Conference, Dresden, Germany, 4-8 September 2006" number="1" year="2006" sourceType="
                  additionalAuthors="M.J. de Wild-Scholten, V.M. Fthenakis" firstAuthor="E.A. Alsema"/>
              <source title="A cost and environmental impact comparison of grid-connected rooftop and ground-based PV s
                  Solar Energy Conference, Dresden, Germany, 4-8 September 2006" number="2" year="2006" sourceType="
                  additionalAuthors="E.A. Alsema, E.W. ter Horst, M. Bächler, V.M. Fthenakis" firstAuthor="M.J. de Wild-Scholt
```

Preparing the data sets for ILCD format using GaBi 4.4



Preparing the data sets for ILCD format using GaBi 4.4

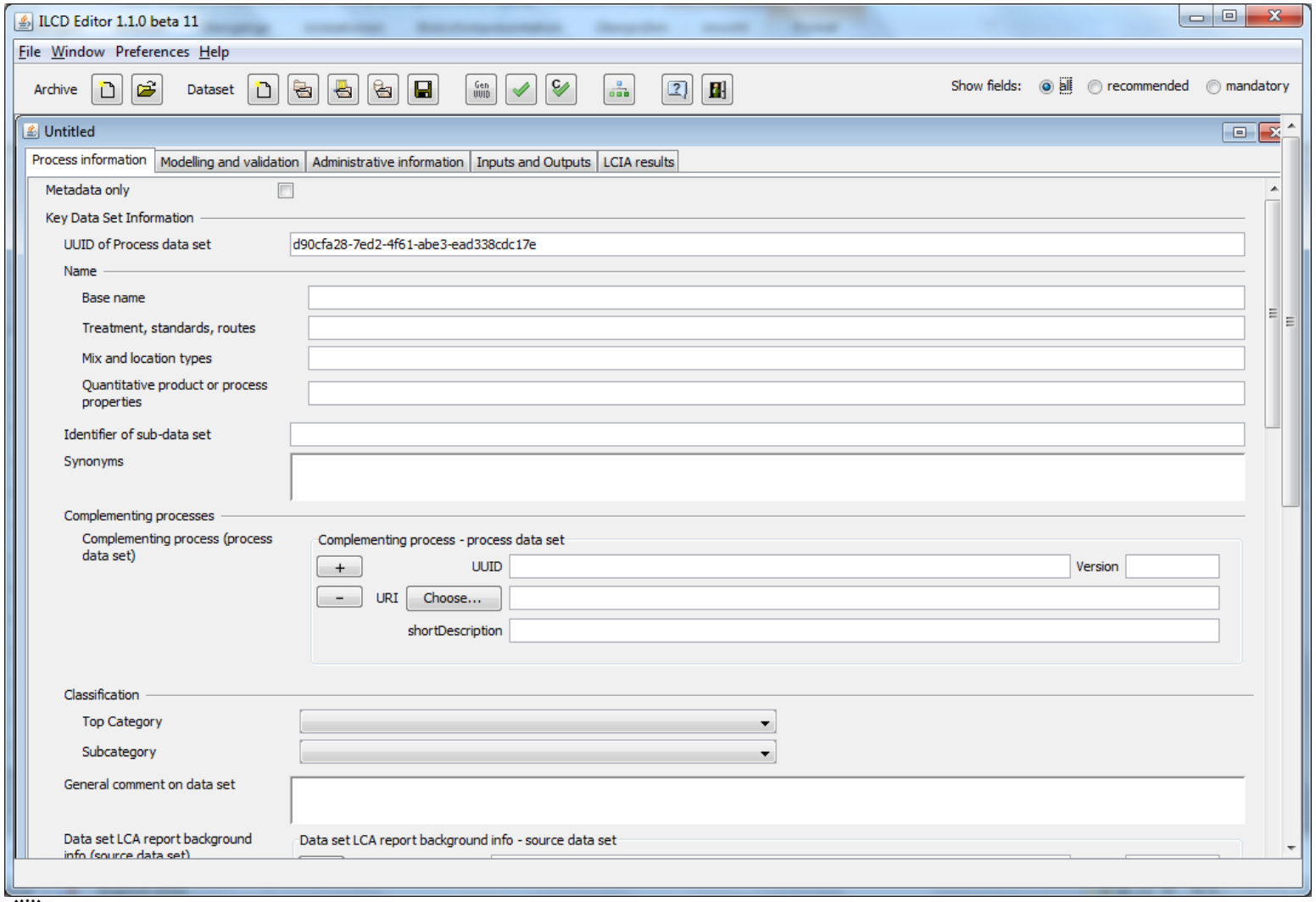


ILCD Editor 1.1.0 beta 11

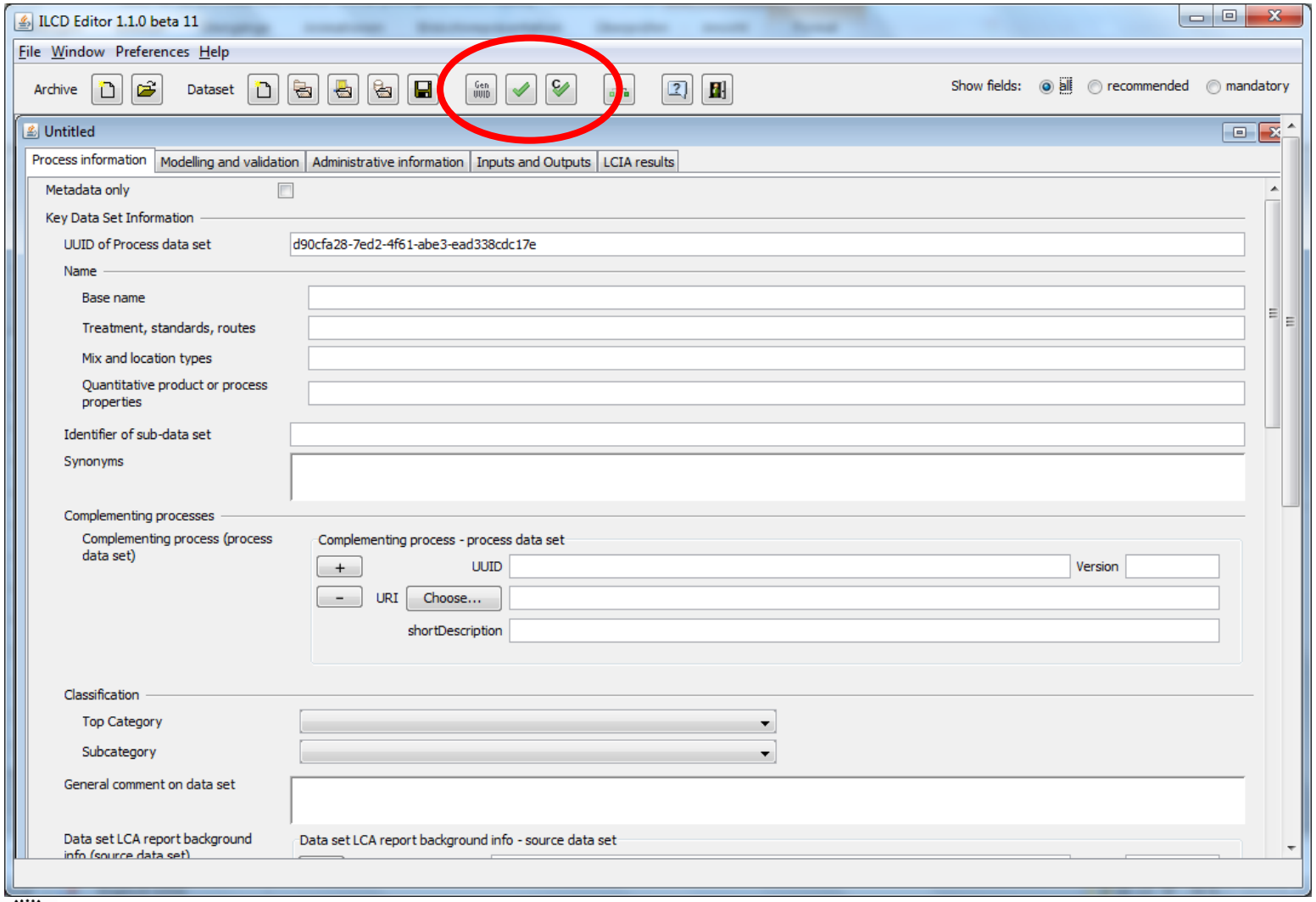
- Software tool provided by the JRC-IES
- This software helps you to create and edit ILCD formatted data sets (version 1.1) and to check whether they are formally valid and meet the compliance requirements
- The editor supports the following ILCD data set types: Process, Flow, Flow property, Unit group, Contact, Source.

Available at: http://lct.jrc.ec.europa.eu/assessment/tools

ILCD Editor 1.1.0 beta 11

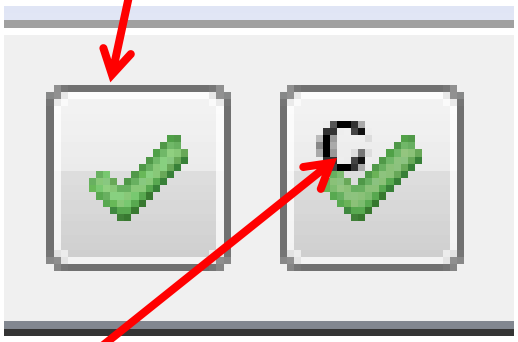


ILCD Editor 1.1.0 beta 11 – validity check and ILCD compliance check



ILCD Editor 1.1.0 beta 11 – validity check and ILCD compliance check

- The green "Validate Data set" button in the editor's toolbar performs a validity check of the dataset.
- It allows to check automatically whether a data set is formally a valid ILCD 1.1 formatted data set



- The "Check ILCD compliance“ button, will perform a check against the ILCD Compliance rules whether the documentation extent meets the documentation requirements

Uploading ILCD data sets

- After the data sets are created they can be displayed in the browser
- They can be uploaded into the ILCD data network
- The network is independently managed network of several servers
- The data sets are open and can be downloaded free of cost

- Starting point is the ILCD homepage
  http://lct.jrc.ec.europa.eu/

Acknowledgement

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