28.05.2024, Berlin

About db_calc

This is a script to calculate an entire, active database in openLCA, for a selected impact assessment method that is in the database. Output is the result of the calculation over the entire life cycle, provided for all processes in the database, for all impact categories in the LCIA method, in a csv file.

The calculation takes literally minutes for an entire ecoinvent 3.10 unit process database.

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Suitable for

openLCA 2.1 and newer. The selected database must be valid, and it should not have ambiguous links (check linking properties first). Depending on the database, 20 GB of RAM should be allocated to openLCA, or more (~18.5 GB is needed for ecoinvent 3.10).

How to use it

Paste the code into the Python Developer window in openLCA, activate the database, specify the location of the output and the UUID of the LCIA method, run the script.

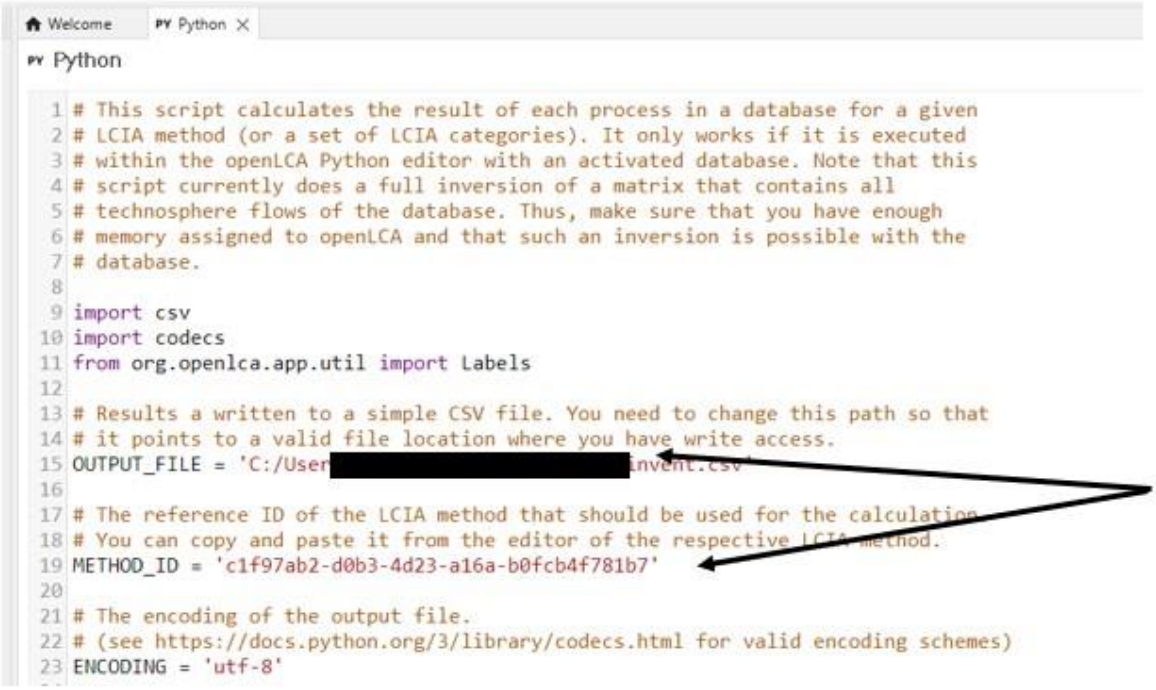
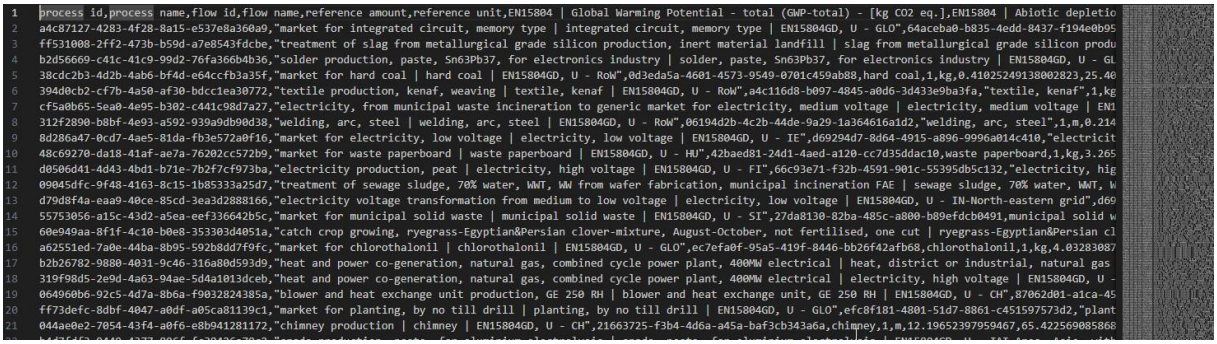


Figure 1. Setting the output path and the UUID of the method



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process id,process name,flow id,flow name,reference amount,reference unit,EN15804 | Global Warming Potential - total (GWP-total) - [kg CO2 eq.],EN15804 | Abiotic depletio
a4c87127-4283-4f28-8a15-e537e8a360a9,"market for integrated circuit, memory type | integrated circuit, memory type | EN15804GD, U - GLO",64aceba0-b835-4edd-8437-f194e0b95
ff531008-2ff2-473b-b59d-a7e8543fdcbe,"treatment of slag from metallurgical grade silicon production, inert material landfill | slag from metallurgical grade silicon produ
b2d56669-c41c-41c9-99d2-76fa366b4b36,"solder production, paste, Sn63Pb37, for electronics industry | solder, paste, Sn63Pb37, for electronics industry | EN15804GD, U - GL
38cdc2b3-4d2b-4ab6-bf4d-e64ccfb3a35f,"market for hard coal | hard coal | EN15804GD, U - RoW",0d3eda5a-4601-4573-9549-0701c459ab88,hard coal,1,kg,0.41025249138002823,25.40
394d0cb2-cf7b-4a50-af30-bdcc1ea30772,"textile production, kenaf, weaving | textile, kenaf | EN15804GD, U - RoW",a4c116d8-b097-4845-a0d6-3d433e9ba3fa,"textile, kenaf",1,kg
cf5a0b65-5ea0-4e95-b302-c441c98d7a27,"electricity, from municipal waste incineration to generic market for electricity, medium voltage | electricity, medium voltage | EN1
312f2890-b8bf-4e93-a592-939a9db90d38,"welding, arc, steel | welding, arc, steel | EN15804GD, U - RoW",06194d2b-4c2b-44de-9a29-1a364616a1d2,"welding, arc, steel",1,m,0.214
8d286a47-0cd7-4ae5-81da-fb3e572a0f16,"market for electricity, low voltage | electricity, low voltage | EN15804GD, U - IE",d69294d7-8d64-4915-a896-9996a014c410,"electricit
48c69270-da18-41af-ae7a-76202cc572b9,"market for waste paperboard | waste paperboard | EN15804GD, U - HU",42baed81-24d1-4aed-a120-cc7d35ddac10,waste paperboard,1,kg,3.265
d0506d41-4d43-4bd1-b71e-7b2f7cf973ba,"electricity production, peat | electricity, high voltage | EN15804GD, U - FI",66c93e71-f32b-4591-901c-55395db5c132,"electricity, hig
09045dfc-9f48-4163-8c15-1b85333a25d7,"treatment of sewage sludge, 70% water, WWT, WW from wafer fabrication, municipal incineration FAE | sewage sludge, 70% water, WWT, W
d79d8f4a-eaa9-40ce-85cd-3ea3d2888166,"electricity voltage transformation from medium to low voltage | electricity, low voltage | EN15804GD, U - IN-North-eastern grid",d69
55753056-a15c-43d2-a5ea-eef336642b5c,"market for municipal solid waste | municipal solid waste | EN15804GD, U - SI",27da8130-82ba-485c-a800-b89efdcb0491,municipal solid w
60e949aa-8f1f-4c10-b0e8-353303d4051a,"catch crop growing, ryegrass-Egyptian&Persian clover-mixture, August-October, not fertilised, one cut | ryegrass-Egyptian&Persian cl
a62551ed-7a0e-44ba-8b95-592b8dd7f9fc,"market for chlorothalonil | chlorothalonil | EN15804GD, U - GLO",ec7efa0f-95a5-419f-8446-bb26f42afb68,chlorothalonil,1,kg,4.03283087
b2b26782-9880-4031-9c46-316a80d593d9,"heat and power co-generation, natural gas, combined cycle power plant, 400MW electrical | heat, district or industrial, natural gas
319f98d5-2e9d-4a63-94ae-5d4a1013dceb,"heat and power co-generation, natural gas, combined cycle power plant, 400MW electrical | electricity, high voltage | EN15804GD, U -
064960b6-92c5-4d7a-8b6a-f9032824385a,"blower and heat exchange unit production, GE 250 RH | blower and heat exchange unit, GE 250 RH | EN15804GD, U - CH",87062d01-a1ca-45
ff73defc-8dbf-4047-a0df-a05ca81139c1,"market for planting, by no till drill | planting, by no till drill | EN15804GD, U - GLO",efc8f181-4801-51d7-8861-c45159753d2,"plant
044ae0e2-7054-43f4-a0f6-e8b941281172,"chimney production | chimney | EN15804GD, U - CH",21663725-f3b4-4d6a-a45a-baf3cb343a6a,chimney,1,m,12.19652397959467,65.422569085868
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Figure 2. A screenshot from the result

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