**COMMON ERRORS**

\*\_\_main\_\_:295: UnicodeWarning: Unicode equal comparison failed to convert both arguments to Unicode - interpreting them as being unequal

=> will produce this WARNING if catchments have numbers as ID. (when comparing to the 'outlet' catchment) **IT should not affect the process (no need to correct)** ! (to remove you can rename you outlet catchment to 999 or whatever and also change that in result\_analysis)

\*KeyError: "Error accessing indexed component: Index '(1, 1L)' is not valid for array component 'wPrecipitation'"'

=> Some mismatch between the excel file and how the parameter is declared in the model

\*ERROR: Constructing component 'water\_waterbalance2' from data=None failed:

\*ValueError: Invalid constraint expression. The constraint expression resolved to a trivial Boolean (True) instead of a Pyomo object. Please modify your rule to return Constraint.Feasible instead of True.

=> The constraint resulted in something like 3 >= 0 (without DV in it) probably because the DV was multiplied by 0, check the parameters in the constraints, for trivial constraint have to use Constraint.Skip or Constraint.Feasible

\*c:\users\rapy\appdata\local\temp\1\tmpybdwlh.pyomo.lp:7: constraints section missing

CPLEX LP file processing error. ApplicationError: Solver (glpk) did not exit normally

missing right-hand side CPLEX LP file processing error

=> Missing data in one of the parameters (0 is ok but nothing is not)

\*assert value(constraint\_data.lower) == \

AssertionError

=> Missing data in one of the parameters (0 is ok but nothing is not) +/or empty constraint

**TIPS ON IDENTIFYING ERRORS**

-if a problem on the very beginning of result analysis, probably the model could not solve, check termination condition of the solver (should be optimal)

-If termination condition = infeasible or other the solver could not solve the problem (it might be impossible to satisfy environmental flows or other constraint …). If "cplex" or "glpk" did not exit normally (different from infeasible), the problem is probably empty data or a bad construction.

**Infeasible problem**

=>Environmental flow too high?   
=>You can either **change data**, or **deactivate some constraints to find out**.

=> Use debug mode

**CPLEX problem**

https://www.ibm.com/support/knowledgecenter/SSSA5P\_12.7.1/ilog.odms.cplex.help/CPLEX/GettingStarted/topics/set\_up/Python\_setup.html