OpenStudio RPD Generation steps

These steps are all orchestrated by running a master script called createOSRulesetProjectDescription.py, with two difference commands.

What each command does is described in detail below:

A flow chart of these detail can be seen at: [OpenStudio RPD implemention flow chart.drawio.html - draw.io](https://app.diagrams.net/#G164sSBaP93pLvT9JOcaHooVvWXyb2Nhdq#%7B%22pageId%22%3A%224B5pT87SY1Ndpzb4Cms2%22%7D)

**Part One: Running the create\_cp\_csv command.**

* 1. We precondition the OpenStudio model and the exported .idf by running these two measures along with the simulation  
     A screenshot of a computer

     Description automatically generated
  2. The EnergyPlus utility *ConvertInputFormat.exe is executed on the .idf to produce a epJSON*
  3. The ***–create\_empty\_cp*** command from the [energyplus-ruleset-model · PyPI](https://pypi.org/project/energyplus-ruleset-model/#history) package is executed in the run directory of the .idf

this creates a .rpd with empty values

* 1. The create\_cp\_csv measure is executed on the resulting empty .rpd and on the OpenStudio model which may contain compliance parameters as additional properties. A csv is created with all these compliance parameters with values filled in if they are in the OpenStudio model as additional properties

The csv looks like the below:  
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* 1. The user must fill in this csv, some compliance parameters are mandatory

**Part Two: Running the create\_rpd command**

* + - * 1. The measure read\_cp\_csv, is executed on the filled in csv and the values from the csv are written to the .rpd
        2. This .rpd is now validated via this package [rpdvalidator · PyPI](https://pypi.org/project/rpdvalidator/)
        3. If the .rpd passes validation, the **--add\_cp** command will be run from [energyplus-ruleset-model · PyPI](https://pypi.org/project/energyplus-ruleset-model/#description)

This will produce the final .rpd which can be compared across the reference RPD