Washout pipeline

Dependencies: Geometry script and particle age pipeline.

1. Change the model name of WashOutmacro
2. Load the paraview\_valid\_region state from two\_last\_cycle folder
3. Load the state file “particle\_age\_part1\_PRE” from the “two\_last\_cycles” folder
4. Load the vtp file at the first timestep only (04770.vtp) in the last cycle
5. Change the name of the single clip under all\_results to “inlet”
6. Create another renderview and place clip3 there
7. Place the models with a good camera angle
8. Run the washout macro
9. For creating a video, run this in cmd “\Users\magnuswe\ffmpeg-7.1.1-essentials\_build\bin\ffmpeg -y -framerate 20 -i frame\_%05d.png -c:v libx264 -crf 18 -pix\_fmt yuv420p washout\_video.mp4”

Macro

1. Reads the points and normal from the vtp file and creates offset points from this. 10 micrometers into the domain.
2. Creates a polypoint source with all the offset points
3. Creates a tracer with the polypoint as source
4. Runs through two cycles with the temp interpolator set to 0.1.
5. Produces a csv file called "washout\_values.csv" with

summary\_data = [

("Points at beginning", num\_points\_start),

("Points at end of first cycle", num\_points\_end\_first\_cycle),

("Points at end of second cycle", num\_points\_end\_second\_cycle),

("Washout probability first cycle", f"{washout\_first:.2f}%"),

("Washout probability second cycle", f"{washout\_second:.2f}%")

]