Tanatloc by Airthium and FreeFEM on rescale cluster

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industrial usage of FreeFEM with GUI on cloud

GUI called `Tanatloc` developed by
Simon Garnotel, Franck Lahaye @ `Airthium`
runs a user defined FreeFEM script or predefined physical models
through web-browser

- ▶ importing STEP file embedded boundary data by coloring through web-browser
- ▶ setting boundary conditions and initial condition
- ▶ setting mesh size, diffusion coefficient, and other parameters
- ▶ running FreeFEM script on cloud system {Qarnot , rescale}

FreeFEM 4.7-1 is implemented on cloud system by

rescale
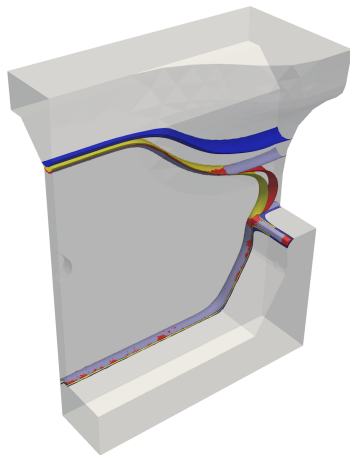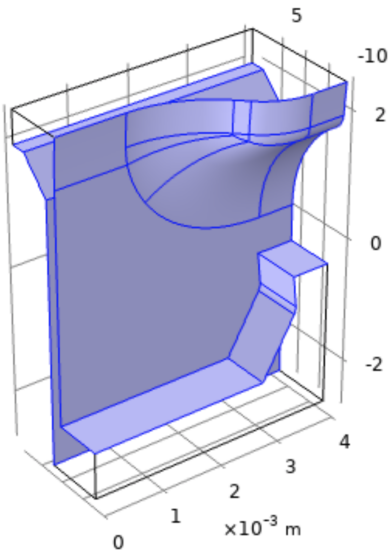
https://www.rescale.com
partners@rescale.com

thanks to Hiroshi Ogawa @ DENSO
and Pierre Jolivet for configuration

- ▶ starting job from Tanatloc GUI
- ▶ direct submission of job from rescale GUI

solder filling problem : joint work with DENSO CORPORATION, Japan
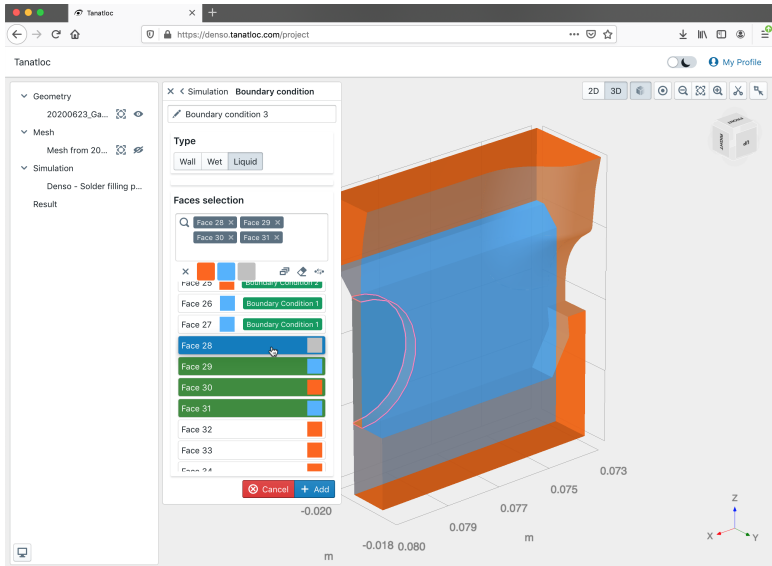

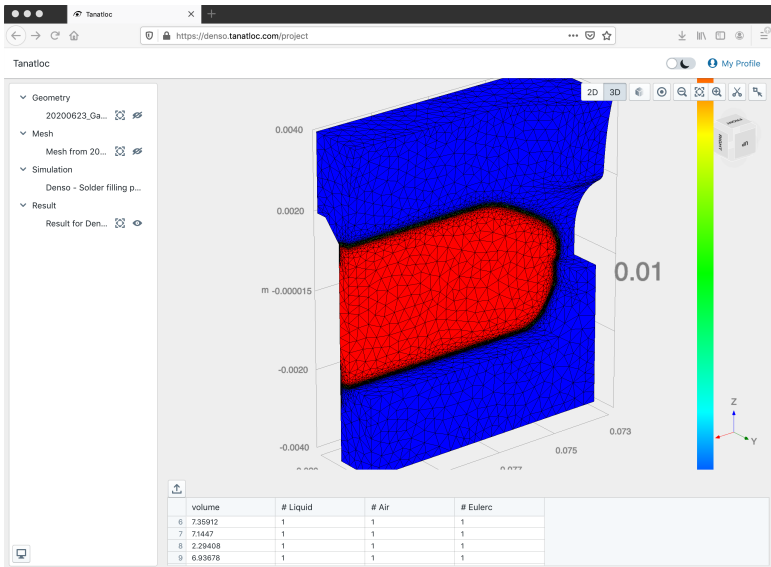input geometry by STEP file

solder reached at the right

- ► solder is filled from left edge of the computing domain
- ► minimum volume of the solder will be found

Tanatloc GUI : setting of initial solder

domain of solder for initial volume is given by user

Tanatloc GUI : result of time step 31

gradient flow + Newton solver for incremented volume = 7.35912