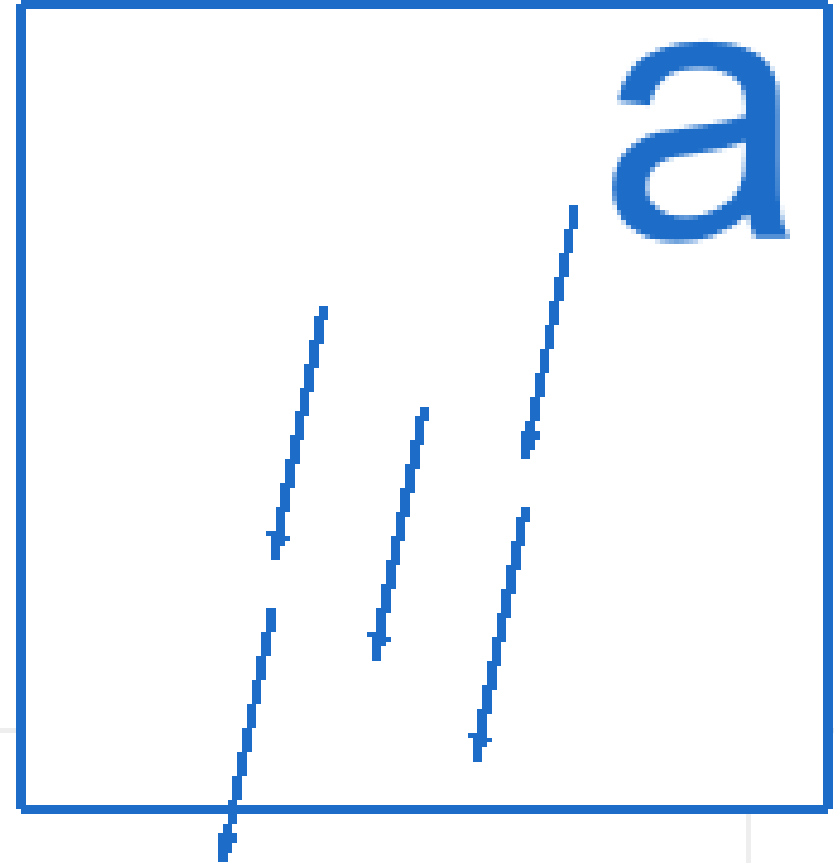


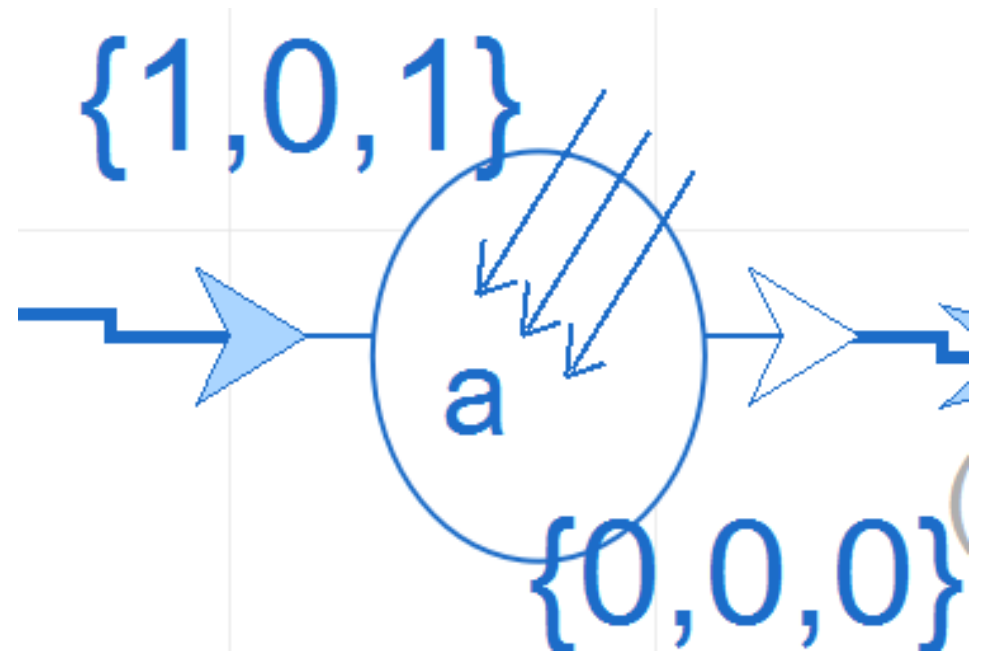
Adding dynamic gravity for tanks

- Boundaries.AccelerationBoundary
- Sets an acceleration field for the entire model
- Default is g in negative z-direction
- Acceleration can be set from inputs



Adding static head

- Processes.StaticHead and
- Undirected.Processes.StaticHead
- $dp = \text{density} * \text{acceleration} * (\text{posTo} - \text{posFrom})$
- The pressure at the outlet is limited to pmin.
- Note that in a closed loop, at least two are needed to get back to original position and avoid a perpetuum mobile.



Adding dynamic gravity for tanks

- Boundaries.CuboidTank and
- Undirected.Boundaries.CuboidTank
- Limited to new GasAndIncompressible base class of media at the moment.
- Geometry is separated from media equations, which means arbitrary geometry is possible.
- A simple cuboid is implemented
- The surface $nx*x+ny*y+nz*z+D$ is located by $D = f(nx,ny,nz,V_liquid, geometry)$
- StaticHead is computed for all connections $pos*\{nx,ny,nz\}+D$
- Special care for connectors at the boundary

