

initialization and pre-loop
computations

time loop

compute flooding and social forces from flood
ComputeSocialForcesStatic_flood.m

generate kd-tree
kdtree.m

interpolate social building forces to agents
ComputeSocialForcesStatic.m

compute exit path taking
agents into account and
interpolate direction to
agent
*ComputeShortestPathGloba
lWithAgents.m*

interpolate exit
direction to
agent

compute exit path taking
agents and flood into
account and interpolate
direction to agent
*ComputeShortestPathGloba
lWithAgentsFlood.m*

agent loop

get surrounding agents
GetSurroundingAgents.m

compute distance to agents
ComputeDistanceToAgents.m

compute social forces from other
agents
ComputeSocialForcesDynamic.m

compute physical forces from other
agents
ComputePhysicalForceAgents.m

compute physical forces from walls
ComputePhysicalForceWalls.m

compute exit force
ComputeExitForce.m

check for agents in flood

move agents
MoveAgents.m

check for agents in buildings and
move them out
CheckAgentsInBuildings.m

remove agents in exit/deep flood/
outside domain

save time series