7/15/25, 1:00 AM Updating...

# **Crowd Evacuation Simulation Dashboard**

#### **Current Statistics**

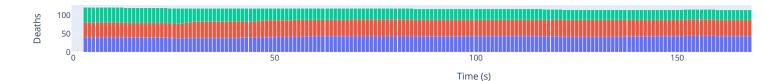
RANDOM: 8 / 120 | PSO: 84 / 120 | SFM: 49 / 120 | PSO SFM(STAFF ALL EVACUATE): 68 / 120 | PSO SFM(STAFF ALL ASSIST): 98 / 120 | PSO SFM(HALF ASSIST): 109 / 120 | PSO SFM(ASSIST MOBILE): 107 / 120 | PSO SFM(ASSIST ELDERLY): 111 / 120 | PSO SFM(TOP EVAC): 103 / 120 | PSO SFM(AVOID TOP): 90 / 120 | PSO SFM(ZONE SWEEP): 114 / 120 | MFO SFM: 31 / 120 | ACO SFM: 51 / 120 | Time: 199s

<pre>\$ Algorithm</pre>	<pre>     Evacuated </pre>	Deaths	<pre>Deaths by Floor</pre>	Evacuated by Age	Staff vs Civilian
filter data					
RAND0M	8 / 120	112	Floor 0: 43, Floor 1: 45, Floor 2: 24	adults: 8/120	Staff: 1/15, Civilian: 7/105
PS0	84 / 120	36	Floor 0: 9, Floor 1: 16, Floor 2: 11	adults: 84/120	Staff: 84/15, Civilian: 0/105
SFM	49 / 120	71	Floor 0: 16, Floor 1: 37, Floor 2: 18	adults: 49/120	Staff: 5/15, Civilian: 44/105
PSO SFM(STAFF ALL EVACUATE)	68 / 120	52	Floor 0: 7, Floor 1: 33, Floor 2: 12	adults: 68/120	Staff: 13/15, Civilian: 55/105
PSO SFM(STAFF ALL ASSIST)	98 / 120	22	Floor 0: 5, Floor 1: 16, Floor 2: 1	adults: 98/120	Staff: 2/15, Civilian: 96/105
PSO SFM(HALF ASSIST)	109 / 120	11	Floor 0: 1, Floor 1: 3, Floor 2: 7	adults: 109/120	Staff: 10/15, Civilian: 99/105
PSO SFM(ASSIST MOBILE)	107 / 120	13	Floor 0: 3, Floor 1: 8, Floor 2: 2	adults: 107/120	Staff: 12/15, Civilian: 95/105
PSO SFM(ASSIST ELDERLY)	111 / 120	9	Floor 0: 2, Floor 1: 4, Floor 2: 3	adults: 111/120	Staff: 11/15, Civilian: 100/105
PSO SFM(TOP EVAC)	103 / 120	17	Floor 0: 1, Floor 1: 16	adults: 103/120	Staff: 10/15, Civilian: 93/105
PSO SFM(AVOID TOP)	90 / 120	30	Floor 0: 2, Floor 1: 25, Floor 2: 3	adults: 90/120	Staff: 6/15, Civilian: 84/105
PSO SFM(ZONE SWEEP)	114 / 120	6	Floor 0: 2, Floor 1: 2, Floor 2: 2	adults: 114/120	Staff: 10/15, Civilian: 104/105
MFO SFM	31 / 120	89	Floor 0: 26, Floor 1: 43, Floor 2: 20	adults: 31/120	Staff: 4/15, Civilian: 27/105

« < 1 / 2 > »

#### Random

Deaths by Floor Over Time (Random)



Evacuated by Age Over Time (Random)



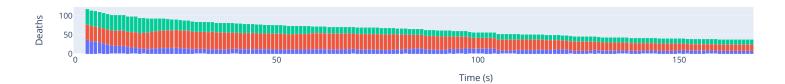
localhost:8050

Staff vs Civilian Evacuation Over Time (Random)



#### **PSO**

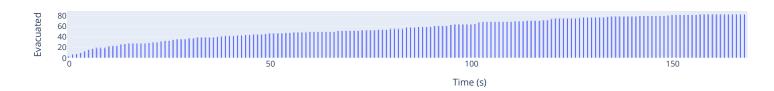
Deaths by Floor Over Time (PSO)



Evacuated by Age Over Time (PSO)

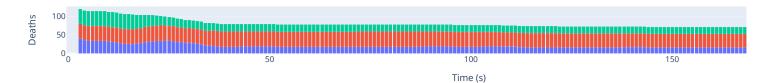


Staff vs Civilian Evacuation Over Time (PSO)



#### **SFM**

Deaths by Floor Over Time (SFM)



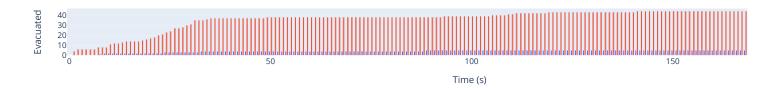
Evacuated by Age Over Time (SFM)





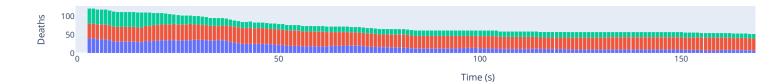
Time (s)

Staff vs Civilian Evacuation Over Time (SFM)



## PSO SFM(Staff all evacuate)

Deaths by Floor Over Time (PSO SFM(Staff all evacuate))



Evacuated by Age Over Time (PSO SFM(Staff all evacuate))

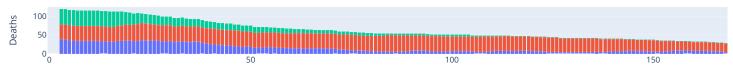


Staff vs Civilian Evacuation Over Time (PSO SFM(Staff all evacuate))



## PSO SFM(Staff all assist)

Deaths by Floor Over Time (PSO SFM(Staff all assist))



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Time (s)

Evacuated by Age Over Time (PSO SFM(Staff all assist))

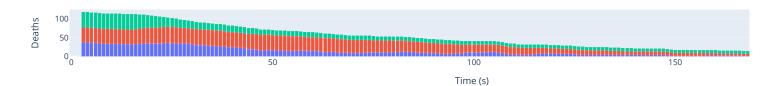


Staff vs Civilian Evacuation Over Time (PSO SFM(Staff all assist))



## PSO SFM(Half Assist)

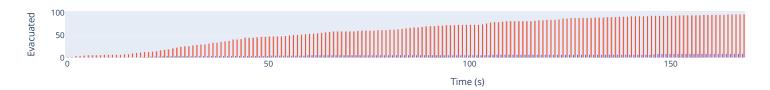
Deaths by Floor Over Time (PSO SFM(Half Assist))



Evacuated by Age Over Time (PSO SFM(Half Assist))

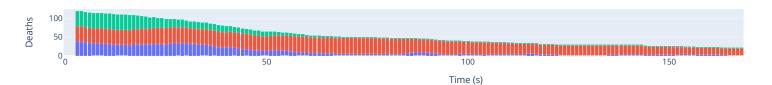


Staff vs Civilian Evacuation Over Time (PSO SFM(Half Assist))



# PSO SFM(Assist Mobile)

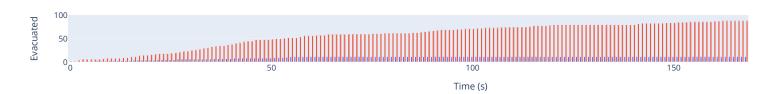
Deaths by Floor Over Time (PSO SFM(Assist Mobile))



Evacuated by Age Over Time (PSO SFM(Assist Mobile))

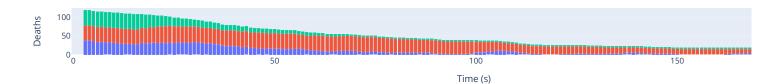


Staff vs Civilian Evacuation Over Time (PSO SFM(Assist Mobile))



#### PSO SFM(Assist Elderly)

Deaths by Floor Over Time (PSO SFM(Assist Elderly))



Evacuated by Age Over Time (PSO SFM(Assist Elderly))



Staff vs Civilian Evacuation Over Time (PSO SFM(Assist Elderly))

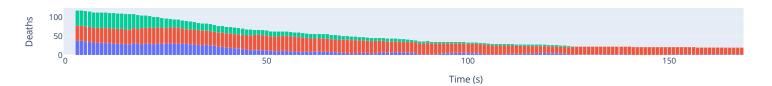


Time (s)

150

## PSO SFM(Top Evac)

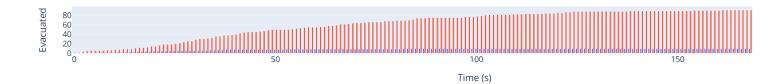
Deaths by Floor Over Time (PSO SFM(Top Evac))



Evacuated by Age Over Time (PSO SFM(Top Evac))

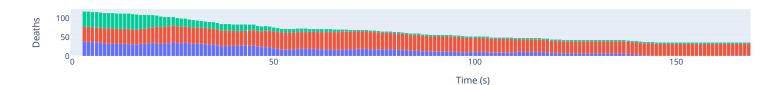


Staff vs Civilian Evacuation Over Time (PSO SFM(Top Evac))



## PSO SFM(Avoid Top)

Deaths by Floor Over Time (PSO SFM(Avoid Top))



Evacuated by Age Over Time (PSO SFM(Avoid Top))



localhost:8050 6/9

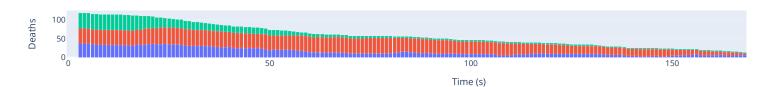
7/15/25, 1:00 AM Updating...

Staff vs Civilian Evacuation Over Time (PSO SFM(Avoid Top))



# PSO SFM(Zone Sweep)

Deaths by Floor Over Time (PSO SFM(Zone Sweep))



Evacuated by Age Over Time (PSO SFM(Zone Sweep))

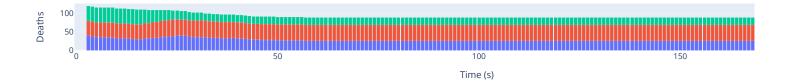


Staff vs Civilian Evacuation Over Time (PSO SFM(Zone Sweep))



#### MFO SFM

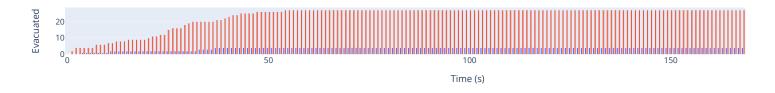
Deaths by Floor Over Time (MFO SFM)



Evacuated by Age Over Time (MFO SFM)

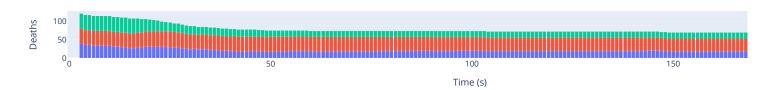


Staff vs Civilian Evacuation Over Time (MFO SFM)



#### **ACO SFM**

Deaths by Floor Over Time (ACO SFM)



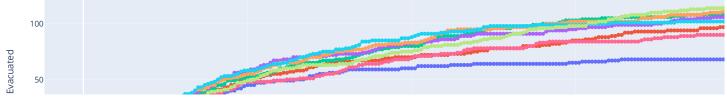
Evacuated by Age Over Time (ACO SFM)

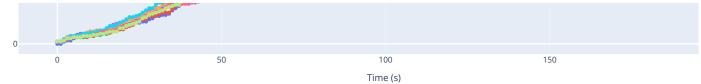


Staff vs Civilian Evacuation Over Time (ACO SFM)

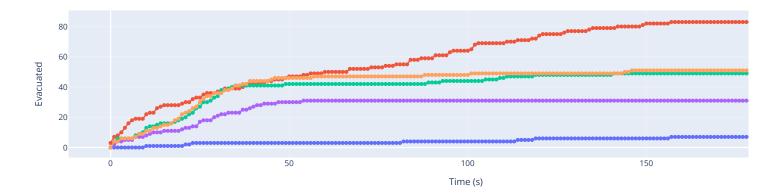


**Evacuation Progress (PSO SFM Variants)** 





## Evacuation Progress (Other Algorithms)



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