

## Safe Stadiums: Integrated large sport facilities protection system supporting the CBRN security of mass events

# **Epidemiological tool** User Manual – Installation





Internal Security Fund — Police Grant Agreement No. 101034226 — SAFE STADIUM





## User Manual – Install.

### Installing SafeStadium Application.

To install the SafeStadium application, follow these steps:

#### 1. Extract the rar file

- Locate the downloaded rar file containing the SafeStadium application.
- Choose a designated location on your computer where you want to extract the file.
- Extract the rar file to the selected folder. You can use a file decompression program such as WinRAR, 7-Zip, or another similar tool.

#### 2. Set up the SafeStadium.exe application

- Go to the folder where you extracted the files.
- Find the file named **SafeStadium.exe**.
- Right-click on the **SafeStadium.exe** file and select **Properties**.
- Go to the **Compatibility** tab.
- Check the option **Run this program as an administrator**.
- Click **Apply**, then **OK** to save the settings.

#### 3. Launch the SafeStadium application

- Double-click the **SafeStadium.exe** file to launch the application.
- The SafeStadium application will start with administrator privileges and will be ready to use.





## **User Manual – Description.**

## **Description of Program Fields and Functions.**

The program consists of three drop-down categories: "Tribune parameters:", "Environmental conditions:", and "Advanced Settings:". The user must fill in the fields in the first two categories, while the third category contains advanced settings that should only be changed if necessary.

### **Tribune parameters:**

Tribune	parameters:			^
Numbe	r of rows			
Enter	rows			
Numbe	r of seats in	a row		
Enter	seats			
Distanc	e between	rows		
1				
Distanc	e between :	seats		
0.02		oouto		
Chair d	imensions			
0.5	0.9	5		
Gener	ate			
Environr	nental condi	itions:		$\sim$
Advance	d Settings:			$\sim$
Row:	Seat:		Infected chairs:	
	Сар	ture a p	ohoto	

- 1. Number of rows Enter the number of rows.
- 2. Number of seats in a row Enter the number of seats in a row.
- 3. **Distance between rows** Distance between rows measured from the center of the seat, given in meters.
- 4. **Distance between seats** Distance between seats in a row measured from the edge of the seat, given in meters.
- 5. Chair dimensions Height and width of the seat, given in meters.

After filling in all the required fields in this category, press the "Generate" button to generate the tribunes.





### **Environmental conditions:**

Tribu	ne parameters:	$\sim$
mou	le parameters.	Ť
Enviro	onmental conditions:	^
Path	nogen:	
Va	riola virus Ospa (Smallpox) 🗸 🗸	
Risk	of human-to-human transmission	
Se	lect pathogen	
Infe	ctious dose	
Se	lect pathogen	
Tem	perature	
26	5	
Hum	nidity	
81		
Stac	lium open:	
Ye	s v	
Se	t	
Adva	nood Sattings	
Auva	iceu settiliys.	~
Row:	Seat: Infected chairs:	
	Capture a photo	

- 1. **Pathogen** Select the pathogen you want to simulate from the drop-down list.
- 2. **Risk of human-to-human transmission** This field displays information about the risk of pathogen transmission to another person (cannot be edited).
- 3. **Infectious dose** This field displays information about the pathogen dose required for infection (cannot be edited).
- 4. **Temperature** Enter the temperature prevailing in the tribunes.
- 5. **Humidity** Enter the air humidity in the tribunes.
- 6. Stadium open Select from the drop-down list whether the stadium roof was open or not.

After filling in all the required fields in this category, press the "Set" button to save the settings.





## **Advanced Settings:**

Tribu	ne parameters:		$\sim$
Enviro	onmental condition	IS:	$\sim$
Adva	nced Settings:		
Sca	e %:		
10	0		
Sha	oe:		
Ci	rcle	~	
PX t	o Meters		
50			
Sav	e		
Row:	Seat:	Infected chairs:	
	Capture	a photo	

Advanced settings should only be changed if necessary.

- 1. Scale % Set the resolution scale at which the program should display the tribunes.
- 2. Shape Set whether the infection area should be a semicircle or a circle.
- 3. **PX to Meters** Set how many pixels should represent one meter on the generated tribunes.





# User Manual – Using.

## Using SafeStadium Application.

Upon launching the program, you will see the main view. On the left side, there are three tabs: "Tribune parameters", "Environmental conditions", and "Advanced Settings".

	Safe Stadium - CBRN Security of mass events
Tribune parameters:	
Number of rows	
Enter rows	
Number of seats in a row	
Enter seats	
Distance between rows	
1	
Distance between seats	
0.02	
Chair dimensions	
0.5 0.5	
Generate	
Environmental conditions:	
Advanced Settings:	
tow: Seat: Infected chairs	
Capture a photo	
	Safe Stadium: Integrated large sport facilities protection system supporting the CBRN security of mass events
	This project is funded by the European Union's Internal Security Fund — Palse Gaast Agreement No. 31034226 — SAFE SIALION





#### Step 1: Filling in the "Tribune parameters" Tab

	Bate Stadium - CBRN Security of mass events
Tribune parameters:	<ul> <li>International and the second se</li></ul>
Number of rows	
10	
Number of seats in a row	
20	
Distance between rows	
1	
Distance between seats	
0.02	
Chair dimensions	
0.5 0.5	
Generate	
nvironmental conditions:	
dvanced Settings:	
w: Seat: Infected chairs:	
Capture a photo	
	Safe Stadium: Integrated large sport facilities protection system supporting the CBRI security of mass events

- 1. Fill in all the required fields:
  - **Number of rows** Enter the number of rows.
  - $\circ$  Number of seats in a row Enter the number of seats in a row.
  - **Distance between rows** Enter the distance between rows in meters.
  - o **Distance between seats** Enter the distance between seats in a row in meters.
  - Chair dimensions Enter the dimensions of the seat (height and width) in meters.
- 2. After entering all the data, click the "Generate" button. The program will generate the tribunes according to the entered parameters.

	Safe Stadium – CBRN Security of mass events
Tribune parameters:	*
Number of rows	
10	
Number of seats in a row	
20	
Distance between rows	
1	
Distance between seats	
0.02	
Chair dimensions	
0.5 0.5	1 2 3 4 5 6 7 8 8 10 11 12 13 14 15 16 17 16 19 20
Generate	1 2 3 4 5 4 7 4 9 10 11 21 3 4 15 10 7 11 19 20 7 7 8 9 10 11 21 3 4 15 10 7 11 19 20 7 7 8 9 10 10 10 10 10 10 10 10 10 10 10 10 10
Environmental conditions:	
Advanced Settings:	
Row: Seat: Infected chai	
Capture a photo	
	Safe Stadium: Integrated large sport facilities protection system supporting the CBMI security of mass events
	This project is funded by the Durspan Entery's Instead Security Fund – Palice Grant Agreement No. 1025H226 – 5445 SSERSH

Step 2: Setting Environmental Conditions in the "Environmental conditions" Tab





	Safe Stadium – CBRN Security of mass events	
Tribune parameters:		
Environmental conditions:		
Pathogen:		
VHFs (Crimean-Congo hemorrha	jic fr 🗸	
Risk of human-to-human transmis	on	
Medium		
Infectious dose		
1-10		
Temperature		
26		
Humidity	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	
81	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	
Stadium open:	1 2 3 4 5 6 7 8 6 10 11 12 13 14 15 16 17 16 19 20	
Yes	✓	
	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 19 <b>1 1 1 1 1 1 1 1 1 1</b>	
Set		
Advanced Settings:		
Cast Infected		
Ow. Seat. Infected		
Capture a photo		
	Safe Stadium: Integrated large sport facilities protection system supporting the CBRN security of mass events	
	The protect is funded by the European Union's Internal Security Fund - Palice Grant Ammentent No. 2013/4226 - SAFE STADBUM	

- 1. Fill in all the required fields:
  - **Pathogen** Select the pathogen from the drop-down list.
  - **Temperature** Enter the temperature in the tribunes in degrees Celsius.
  - **Humidity** Enter the air humidity in the tribunes in percentage.
  - Stadium open Select whether the stadium roof was open or closed.
- 2. After entering all the data, click the "Set" button. The environmental conditions will be saved.

#### **Step 3: Interacting with the Generated Seats**

•	
une parameters:	$\sim$
ironmental conditions:	^
thogen:	
/HFs (Crimean-Congo hemorrhagic fe	~
k of human-to-human transmission	
ectious dose	
-10	
mperature	
26	
imidity 31	
adium open:	
/es	~
Set	
anced Settings:	~
5 Seat: 12 Infected chair	s: 11
Capture a photo	

- 1. Click on any seat in the generated tribunes.
- 2. The program will draw a circle around the selected seat, illustrating the infection risk area.
- 3. Seats within this circle will be highlighted in green.
- 4. Information will appear on the left side of the screen indicating which row and seat numbers are at risk, and how many seats are within the risk area.



#### Step 4: Saving a Screenshot

- 1. Click the **"Capture a photo"** button located at the bottom of the screen.
- 2. The program will take a screenshot of the current view.
- 3. You will be prompted to choose where to save the screenshot.
- 4. Select the location on your device and confirm the save.







