



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: ^

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: v

Advanced Settings: v

Row: Seat: Infected chairs:

Capture a photo

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:

Tribune parameters: ∨

Environmental conditions: ∧

Pathogen:
Variola virus Ospa (Smallpox) ∨

Risk of human-to-human transmission
Select pathogen

Infectious dose
Select pathogen

Temperature
26

Humidity
81

Stadium open:
Yes ∨

Set

Advanced Settings: ∨

Row:	Seat:	Infected chairs:
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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:

Tribune parameters: ∨

Environmental conditions: ∨

Advanced Settings: ∧

Scale %:

Shape:
 ∨

PX to Meters

Row:	Seat:	Infected chairs:
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Advanced settings should only be changed if necessary.

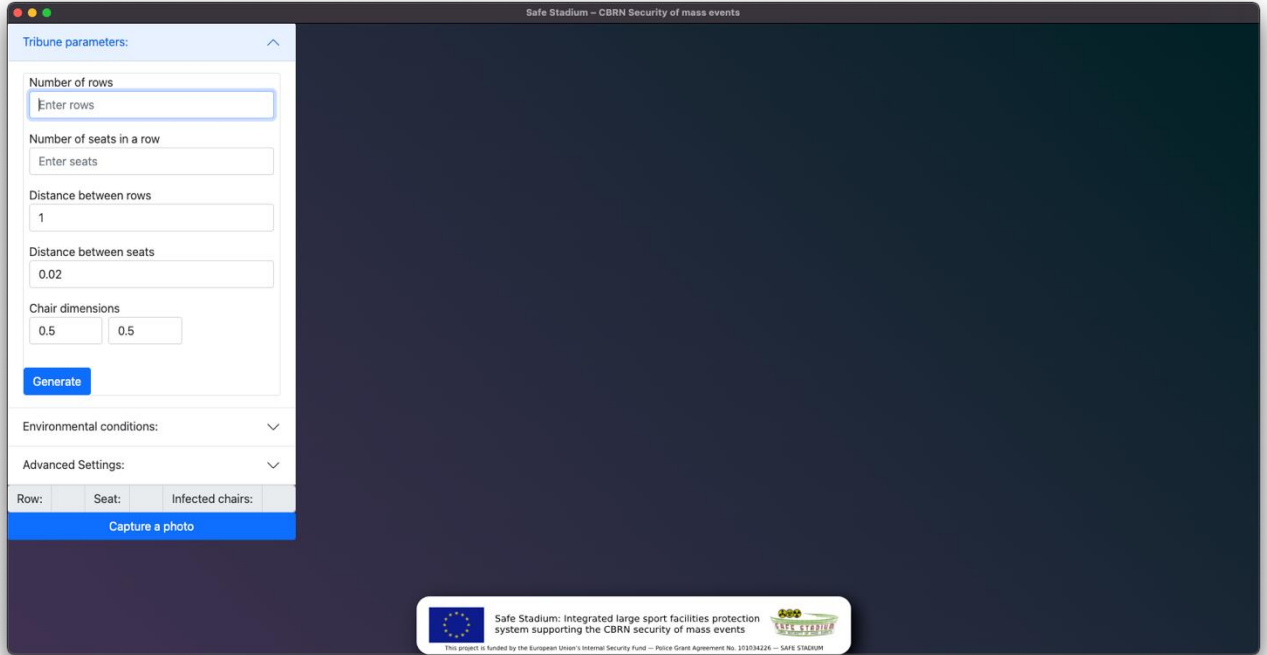
1. **Scale %** – Set the resolution scale at which the program should display the tribunes.
2. **Shape** – Set whether the infection area should be a semicircle or a circle.
3. **PX to Meters** – Set how many pixels should represent one meter on the generated tribunes.



User Manual – Using.

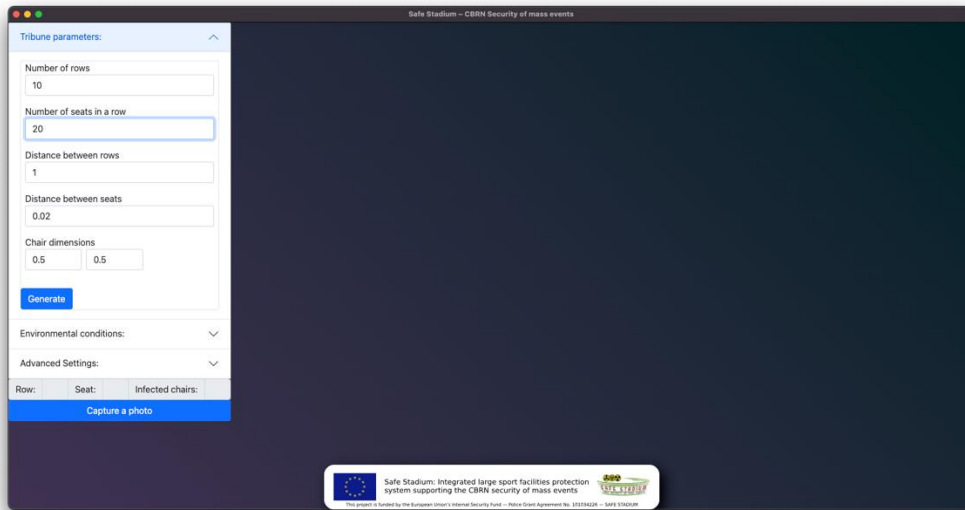
Using SafeStadium Application.

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”.





Step 1: Filling in the “Tribune parameters” Tab



1. Fill in all the required fields:
 - **Number of rows** – Enter the number of rows.
 - **Number of seats in a row** – Enter the number of seats in a row.
 - **Distance between rows** – Enter the distance between rows in meters.
 - **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.



Step 2: Setting Environmental Conditions in the “Environmental conditions” Tab



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



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.

Row:	5	Seat:	12	Infected chairs:	11
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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.



