CLAIMS

1. A system for simulation in a virtual reality environment comprising:

a station (100) comprising a screen display displaying a first graphical user interface, a central processing unit and controllers, wherein the station (100) is operated by a human user for monitoring and controlling the simulation; and

at least one apparatus (200) comprising a screen display (202) displaying a second graphical user interface, wherein the at least one apparatus (200) is operated by another human user, configured for simulating an object or a human member, and for receiving instructions from the station (100) in the event of simulation;

characterized in that the system is configured for an interactive simulation in a virtual reality environment via interaction between the station (100) and the at least one apparatus (200) in a real time operation,

wherein the interactive simulation is a mixed entities environment, in a manner that the virtual reality environment is a shared environment, comprising mixed entities including objects and human members simulated by a plurality of the apparatus (200) and involving interaction and communication between the objects and human members within a simulated environment, wherein simulated activities are centrally monitored and controlled by the station (100).

2. The system of claim 1, wherein the simulated human member is a crew member.

3. The system of claim 1, wherein the station (100) is configured for modifying any one of numbers or types of the simulated object or the simulated human member.

4. The system of claim 1, wherein the station (100) is configured for introducing at least an unexpected event into the virtual reality environment.

5. The system of claim 4, wherein said at least an unexpected event is any one of a pedestrian crossing (11), vehicle crossing (12), oil spill (13), object drop (14), sudden brake of a front vehicle (15), or an insertion of cargo (16).

6. The system of claim 1, wherein the station (100) is configured for the human user to view the entire area of the virtual reality environment.

7. The system of claim 1, wherein the station (100) is configured for the human user to control any one or a combination of a weather condition, temperature, wind speed, humidity level, or time of a day, within the virtual reality environment.

8. The system of claim 1, wherein the simulated object comprises a tow tractor (21), jet refueler (22), baggage conveyor (23), vestibule door (24), mobile passenger stairs (25), catering truck (26), passenger bus (27), toilet truck (28), or a portable water truck (29).

9. The system of claim 1, wherein the simulated object further comprises a fuel service vehicles, baggage tractor with dolly, dollies, ground power units, buses, air start units, portable water trucks, catering vehicles, passenger boarding stairs, sky loader or a baggage conveyor, joint container pallet loader, container loader, push back tugs and tractors, tow tugs, transporters, container transporters, hi-lift trucks, fuel bowsers, water bowsers, lavatory service vehicles, passengers loading bridge, passenger vans, belt loaders, de/anti-icing vehicles or an aircraft rescue and firefighting vehicles.

10. The system of claim 1, wherein the apparatus (200) is operated remotely.

11. The system of claim 1, wherein the apparatus (200) for simulating the human member comprises a virtual reality goggle.

12. The system of claim 1, wherein the simulation is for a training session.

13. The system of claim 1, wherein the virtual reality environment is any one of an airside of an airport, ship port operation, fire and rescue operation, or military operation.

14. A method for simulation in a virtual reality environment using the system of claim 1, the method comprising the steps of:

initiating the simulation by the station (100) operated by a human user;

simulating an object or a human member, and receiving instructions from the station (100) in the event of simulation by the at least one apparatus (200) operated by another human user; and

completing the simulation and generating a report on the simulation;

characterized in that the system is configured for an interactive simulation in the virtual reality environment via interaction between the station (100) and the at least one apparatus (200) in a real time operation,

wherein the interactive simulation is a mixed entities environment, in a manner that the virtual reality environment is a shared environment, comprising mixed entities including objects and human members simulated by a plurality of the apparatus (200) and involving interaction and communication between the objects and human members within a simulated environment, wherein simulated activities are centrally monitored and controlled by the station (100).

15. The method of claim 14, wherein the simulation is for a training session.

16. The method of claim 14, wherein the virtual reality environment is any one of an airside of an airport, ship port operation, fire and rescue operation, or military operation.

17. An apparatus (200) for simulating an object in a virtual reality environment comprising:

a controller module (201); and

a display (202) connected to the controller module (201) for displaying images in a graphical user interface mode;

wherein the display (202) is configured for providing multilayered omnidirectional view of the virtual reality environment to a human user operating the apparatus (200),

characterized in that the display (202) is configured for an interactive simulation in the virtual reality environment via interaction between a station (100) and the apparatus (200) in a real time operation;

wherein the interactive simulation is a mixed entities environment, in a manner that the virtual reality environment is a shared environment, comprising mixed entities including objects and human members simulated by a plurality of the apparatus (200) and involving interaction and communication between the objects and human members within a simulated environment, wherein the simulated activities are centrally monitored and controlled by the station (100).

18. The apparatus of claim 17, wherein the controller module (201) is configured for controlling in simulation of any one of the objects of a tow tractor (21), jet refueler (22), baggage conveyor (23), vestibule door (24), mobile passenger stairs (25), catering truck (26), passenger bus (27), toilet truck (28), or a portable water truck (29).

19. The apparatus of claim 17, wherein the controller module (201) is further configured for simulation of any one of the objects of a fuel service vehicles, baggage tractor with dolly, dollies, ground power units, buses, air start units, portable water trucks, catering

vehicles, passenger boarding stairs, sky loader or a baggage conveyor, joint container pallet loader, container loader, push back tugs and tractors, tow tugs, transporters, container transporters, hi-lift trucks, fuel bowsers, water bowsers, lavatory service vehicles, passengers loading bridge, passenger vans, belt loaders, de/anti-icing vehicles or an aircraft rescue and firefighting vehicles.

20. The apparatus of claim 17, wherein the controller module (201) is operated remotely.

21. The apparatus of claim 17, wherein the display (202) is a singular connecting curved screen panel for displaying continuous simulated images.

22. The apparatus of claim 21, wherein the singular connecting curved screen panel is configured as a dome-like structure.

23. The apparatus of claim 17, wherein the display (202) is a plurality and combined screen panels (42) for displaying indefinite number of images.

24. The apparatus of claim 23, wherein the plurality and combined screen panels (42) for displaying images are arranged on a base formed by any polygon shape.

25. The apparatus of claim 24, wherein the polygon shape is any one of an octagon, hexagon, square, pentagon, nonagon or a decagon combined screen panels.

26. The apparatus of claim 25, wherein the polygon shape provides continuous images.