

CLAIMS

1. A method for facilitating transportation of an observer in a vehicle, the method comprising the steps of:

- providing video images from a plurality of cameras, wherein said cameras are oriented in such a way that the video images show parts of the environment of the vehicle in which the observer is transported and wherein the field of views of said cameras are partly overlapping;
- detecting an orientation of the head of the observer;
- combining said video images from the plurality of cameras so that the combined video images provide a first video image of a first section of the environment of the vehicle; and
- presenting a second video image showing a second section of the environment of the vehicle to the observer, wherein said second section is a subset of said first section and wherein said second section of the environment corresponds to the detected orientation of the head of the observer,

wherein said first section of the environment is a proper subset of the environment which can be seen by said plurality of cameras such that said detecting and said presenting is repeated after a predetermined time-period short enough not to cause nausea for the observer,

combining said video images from the plurality of cameras so that the combined video images provide a third video image of a third section of the environment of the vehicle,

wherein said third section of the environment is a proper subset of the environment which can be seen by said plurality of cameras, wherein said third section of the environment is a proper subset of the first section and has a higher quality in the corresponding video image compared to the video image corresponding to the first section of the environment, and

detecting the turn rate of the head of the observer,
presenting the video image corresponding to the first section with the lower quality if the turn rate is above a pre-determined threshold, and

presenting the video image corresponding to the third section with the higher quality if the turn rate is below the pre-determined threshold, wherein the repeating of said

detecting the orientation of the head of the observer and said presenting is done at least every 17 milliseconds.

2. The method according to claim 1, wherein a horizontal or vertical angle of view of the first or the third section is lower than 120 degrees.
3. The method according to claim 1, wherein a frame rate of the video images from said plurality of cameras is at least 25 Hertz.
4. The method according to claim 1, wherein said presenting is performed by following a movement of the head of the observer.
5. The method according to claim 1, further comprising adding virtual objects to said second video image.
6. The method according to claim 1, further comprising adding overlay information to said second video image.
7. A system for facilitating transportation of an observer in a vehicle, said system comprising:
 - a plurality of cameras being arranged to provide video images, wherein said cameras are oriented in such a way that the video images show parts of the environment of the vehicle in which the observer is transported and wherein the field of views of said cameras are partly overlapping;
 - an electronic control unit that combines said video images from the plurality of cameras so that the combined video images provide a first video image of a first section of the environment of the vehicle;
 - a detector comprising a gyroscope and/or an optical detection unit that detects an orientation of the head of the observer;
 - a presenter comprising a display and/or a projector that presents a second video image showing a second section of the environment of the vehicle to the

observer, wherein said second section is a subset of said first section and wherein said second section of the environment corresponds to the detected orientation of the head of the observer,

wherein said first section of the environment is a proper subset of the environment which can be seen by said plurality of cameras such that said the detector and the presenter are arranged to repeat said detecting and said presenting, respectively, after a predetermined time-period short enough not to cause nausea for the observer,

the electronic control unit combines said video images from the plurality of cameras so that the combined video images provide a third video image of a third section of the environment of the vehicle,

wherein said third section of the environment is a proper subset of the environment which can be seen by said plurality of cameras, wherein said third section of the environment is a proper subset of the first section and has a higher quality in the corresponding video image compared to the video image corresponding to the first section,

wherein the system is arranged to detect the turn rate of the head of the observer and to present the video image of the first section with the lower quality if the turn rate is above a pre-determined threshold, to present the video image of the third section with the higher quality if the turn rate is below the pre-determined threshold, and to repeat said detecting the orientation of the head of the observer and said presenting at least every 17 milliseconds.

8. The system according to claim 7, wherein a horizontal or vertical angle of view of the first or the third section is lower than 120 degrees.

9. The system according to claim 7, wherein a frame rate of the video images from said plurality of cameras is at least 25 Hertz.

10. The system according to claim 7, wherein the presenter is arranged to follow a movement of the head of the observer.

11. The system according to claim 7, further wherein the electronic control unit adds virtual objects to said second video image.

12. The system according to claim 7, further wherein the electronic control unit adds overlay information to said second video image.

13. The system according to claim 7, further comprising a positioning system comprising one or more gyroscopes and/or a connection to a global navigation satellite system that determines the position or orientation of the vehicle.

14. The system according to claim 7, further comprising a gyroscope that determines an orientation of a turret of the vehicle.

15. A computer program for facilitating transportation of an observer in a vehicle, wherein said computer program is stored on a non-transitory computer-readable medium with program code for causing an electronic control unit or a computer connected to the electronic control unit to perform the steps according to claim 1.

16. A computer program product containing a program code stored on a non-transitory computer-readable medium for performing method steps according to claim 1, when said computer program is run on an electronic control unit or a computer connected to the electronic control unit.

17. A vehicle comprising the system according to claim 7.