

WHAT IS CLAIMED IS:

1. A computer-implemented method for providing a contiguous environment for a plurality of display devices, comprising:
 - identifying, by at least one processor, a projection of a virtual camera onto a virtual plane, wherein the virtual plane is provided in a replicated real-world environment or in a virtual environment;
 - determining, by the at least one processor, a display plane area based on an intersection of the projection of the virtual camera onto the virtual plane;
 - calculating, by the at least one processor, a position for each of a plurality of virtual windows on the display plane area based on (i) one or more properties of a plurality of real-world display devices and (ii) a focal length of the virtual camera, wherein at least one of the plurality of virtual windows corresponds to a respective one of the plurality of real-world display devices;
 - placing, by the at least one processor, the plurality of virtual windows at the position on the display plane area;
 - identifying, by the at least one processor, content that is at least partially behind at least one of the plurality of virtual windows; and
 - providing, by the at least one processor, data to the respective one of the plurality of real-world display devices relating to the at least one of the plurality of virtual windows having the content,
 - wherein at least one of the identifying, determining, calculating, placing and providing is performed by one or more computers.
2. The computer-implemented method of claim 1, wherein the content is captured by the virtual camera.
3. The computer-implemented method of claim 1, wherein the content is a three-dimensional virtual object.
4. The computer-implemented method of claim 1, further comprising:

determining, by the at least one processor, a location of the virtual camera in the replicated environment; and

rendering, by the at least one processor, the virtual camera in the replicated environment at the location.

5. The computer-implemented method of claim 4, wherein the location of the virtual camera in the replicated environment is based on one or more properties of the plurality of real-world display devices in the real-world environment.
6. The computer-implemented method of claim 4, wherein the location of the virtual camera in the replicated environment is based a focal length of the virtual camera to the display plane area.
7. The computer-implemented method of claim 1, wherein the projection of the virtual camera is a defined shape.
8. The computer-implemented method of claim 7, wherein the defined shape is a rectangular frustum.
9. The computer-implemented method of claim 1, wherein the display plane area encompasses at least each of the plurality of virtual windows.
10. The computer-implemented method of claim 1, wherein each of the plurality of virtual windows corresponds to a respective one of the plurality of real-world devices.
11. The computer-implemented method of claim 10, wherein the plurality of real-world display devices comprise a first set of real-world display devices and a second set of real-world devices that each provide the contiguous environment.

12. The computer-implemented method of claim 11, wherein the virtual camera comprises a plurality of virtual cameras, wherein each of the plurality of cameras focuses on a respective one of the plurality of virtual windows.
13. The computer-implemented method of claim 11, wherein each of the plurality of virtual windows correspond to a respective one of each of the first set of real-world display devices and the second set of real-world display devices.
14. The computer-implemented method of claim 12, wherein the first set of real-world display devices, the second set of real-world display devices, and the virtual windows have a same configuration.
15. The computer-implemented method of claim 1, wherein the one or more properties of the plurality of real-world display devices include a resolution, a position, and a dimension of the plurality of real-world display devices.
16. A system, comprising:
 - a memory; and
 - at least one processor coupled to the memory and configured to:
 - identify a projection of a virtual camera onto a virtual plane, wherein the virtual plane is provided in a replicated environment;
 - determine a display plane area based on an intersection of the projection of the virtual camera onto the virtual plane;
 - calculate a position for each of a plurality of virtual windows on the display plane area based on (i) one or more properties of a plurality of real-world display devices and (ii) a focal length of the virtual camera, wherein at least one of the plurality of virtual windows corresponds to a respective one of the plurality of real-world display devices;
 - place the plurality of virtual windows at the position on the display plane area;
 - identify content that is at least partially behind at least one of the plurality of virtual windows; and

provide data to the respective one of the plurality of real-world display devices relating to the at least one of the plurality of virtual windows having the content.

17. The system of claim 12, the at least one processor further configured to:
 - determining a location of the virtual camera in the replicated environment; and
 - rendering, the virtual camera in the replicated environment at the location.
18. The system of claim 14, wherein the projection of the virtual camera is a rectangular frustum.
19. The system of claim 14, wherein the one or more properties of the plurality of real-world display devices include a resolution, a position, and a dimension of the plurality of real-world display devices.
20. A non-transitory computer-readable device having instructions stored thereon that, when executed by at least one computing device, causes the at least one computing device to perform operations comprising:
 - identifying a projection of a virtual camera onto a virtual plane, wherein the virtual plane is provided in a replicated real-world environment or in a virtual environment;
 - determining a display plane area based on an intersection of the projection of the virtual camera onto the virtual plane;
 - calculating a position for each of a plurality of virtual windows on the display plane area based on (i) one or more properties of a plurality of real-world display devices and (ii) a focal length of the virtual camera, wherein at least one of the plurality of virtual windows corresponds to a respective one of the plurality of real-world display devices;
 - placing the plurality of virtual windows at the position on the display plane area;
 - identifying content that is at least partially behind at least one of the plurality of virtual windows; and
 - providing data to the respective one of the plurality of real-world display devices relating to the at least one of the plurality of virtual windows having the content.