**Abstract**

Prepar3D (P3D) is a simulation software designed by Lockheed Martin and is a viable gaming and training software that possesses a multitude of uses for the military. Lockheed Martin plays a significant role in military development already and this software just adds to their previous accomplishments. Prepar3D provides a wide range of scenarios and a virtual world consisting of over 40 highly detailed cities and nearly 25,000 already developed airports. Additional capabilities of this software are the ability to transition from day to night and adjust weather conditions for different training scenarios.

Visual capabilities of this software outperform many other capable VR driving software currently on the market because of their 64-bit architecture enabling higher resolution and the ability for improved performance with the proper equipment. Necessary equipment to fulfill this capability will be discussed later in this document. With the customizable atmosphere and realistic topography VR training capabilities are possible anywhere in the world that we can use the World Geodetic System 1984 (WGS-84) navigation convention. This navigational approach allows for an extremely precise spatial reference with a degree of accuracy of less than two centimeters of error. This is also the same system we use in our current aircraft and across the Army.

With any software there are minimum computer requirements, and they differ slightly for P3D depending on the version installed. The minimum computer for this version can be found in Figure 1.

Graphical user interface

Description automatically generated

Figure 1 (Prepar3D, n.d.)

**Conclusion**

**Limitations**

Although this software is a commercial of the shelf (COT) product there are some limitations for the use as a training tool. Each computer that this software is loaded on must have its own individual license and a capable person with the ability to adjust the scenarios or flight models they must possess a developer license.

**Relevance**

Short background on P3D

Reference:

*Prepar3D product overview*. Prepar3D. (n.d.). Retrieved July 13, 2022, from <https://www.prepar3d.com/product-overview/>

*World Geodetic System (WGS84)*. GIS Geography. (2022, May 28). Retrieved July 13, 2022, from <https://gisgeography.com/wgs84-world-geodetic-system/>