**Introduction**

Advancements in geospatial data utilization have created an opportunity for the creation of large-scale assets created for integration within the Unreal Engine. By leveraging real-world street layouts and architectural data, users can import and integrate these assets into real-time gaming environments. The integration of procedural generation tools like Houdini enables swift generation of intricate assets, vastly enriching the visual fidelity of game maps.

Leveraging Unreal Engine's robust particle effects system, Niagara, further enhances the immersive experience by imbuing environments with lifelike realism. One notable application of this technology lies in the direct integration of imported road networks with C++ functionality through blueprints using the Street Map Plugin for Unreal Engine (Fricker, 2023) without the labor-intensive process of manual asset creation. These blueprints facilitate a myriad of interactions, including the implementation of AI navigation algorithms tailored to support desired gameplay mechanics. This research endeavors to delve into the practical implementation of these assets within the context of a city-building gaming environment, emphasizing the seamless fusion of geospatial data, procedural asset generation, and cutting-edge visual effects elements.