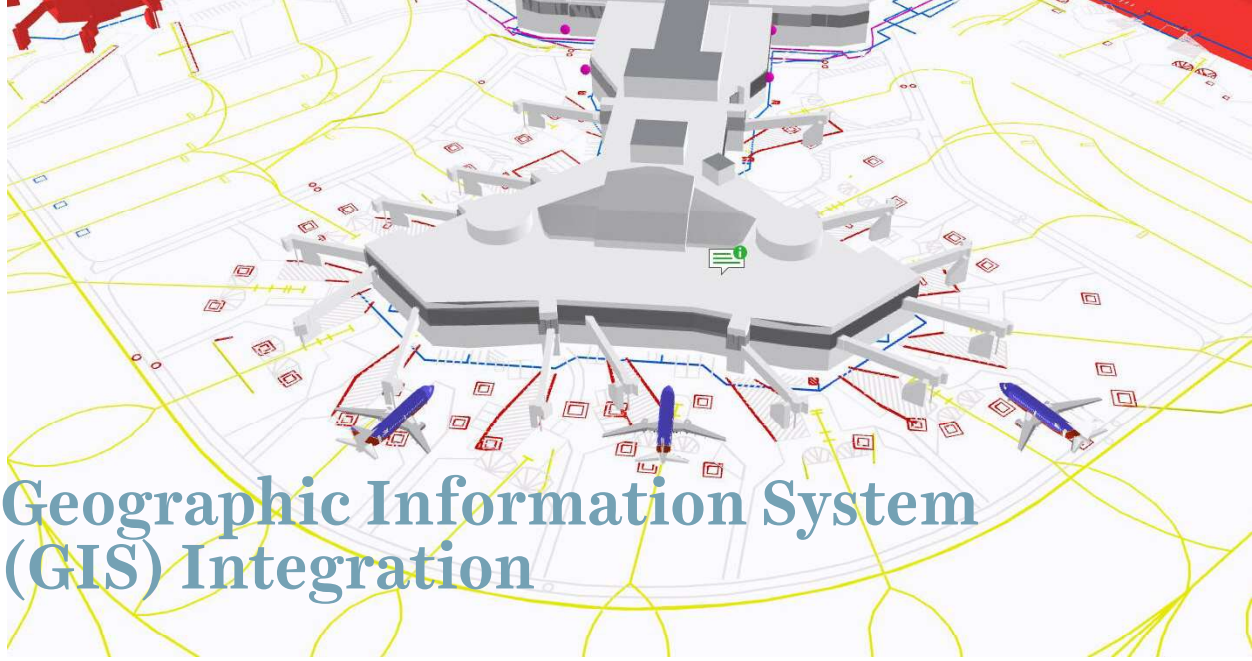

Geographic Information System (GIS) Integration

What is it?

At this time, information in BIM is not easy to query and scale across multiple facilities. GIS, on the other hand, is specifically suitable to visualize, analyze, model and forecast facility and infrastructure information at a campus level. Integrating BIM with GIS introduces a greater level of efficiency to organize and consolidate a large amount of data, and to put data in spatial context. GIS has the ability to combine and overlay layers of data from different sources, further promoting information exchange and collaboration. Highly customizable, web-enabled applications in GIS can also serve as potential viewers for BIM.

GIS is a dynamic platform used through the life cycle of infrastructure and it is capable of combining building geometry with live sensor data. This ability is particularly important in order for the Airport to support operational functions including emergency response, wayfinding, as well as the forecast of building use for revenue development based on passengers' behavior and movements.

BIM authoring tools can export validated geometry for background floor plans and tabulated data (e.g., space area, or space numbers) for input to GIS. This bi-directional integration of BIM and GIS represents the verified central source of infrastructure information at the Airport.

How does it benefit stakeholders at the Airport?

- Standardizes information through the life cycle of facilities
- Reduces risk of isolated software applications and data use
- Uniform access to information related to infrastructure
- Scalability of information access and management