

Enhance Your Mission with Speed and Accuracy

Increase operational efficiencies, inform data-driven decisions, and accelerate engineering. Booz Allen digital twin solutions capture the real world through vast collection and integration of data, understand it with artificial intelligence (AI), and recreate it in the digital world.

Our digital twin solutions are enabled by a data pipeline, or “digital thread,” that spans the lifecycle of a product or process, providing a single source of truth for unlimited use cases, including:



PLANNING



DESIGN



CONSTRUCTION

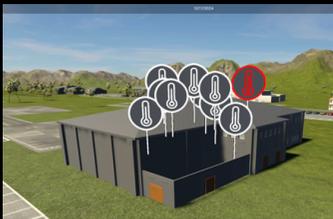


SUSTAINMENT



OPERATIONS

*Address problems before they occur, improve operations, minimize downtime, increase cost savings, and maximize return on investment (ROI).*



## DIGITIZE INFRASTRUCTURE

Use multiple sensor platforms connected to the Internet of Things (IoT) to ingest existing, unstructured, and streamlined data to deliver the accuracy needed when developing key planning and simulation characterization.



## INTEGRATE BUILDING INFORMATION MODELS (BIM)

Harness the performance of a gaming engine to seamlessly integrate engineering grade data and geospatial imagery – strengthening infrastructure lifecycle output while increasing operational efficiency, agility, and resilience.



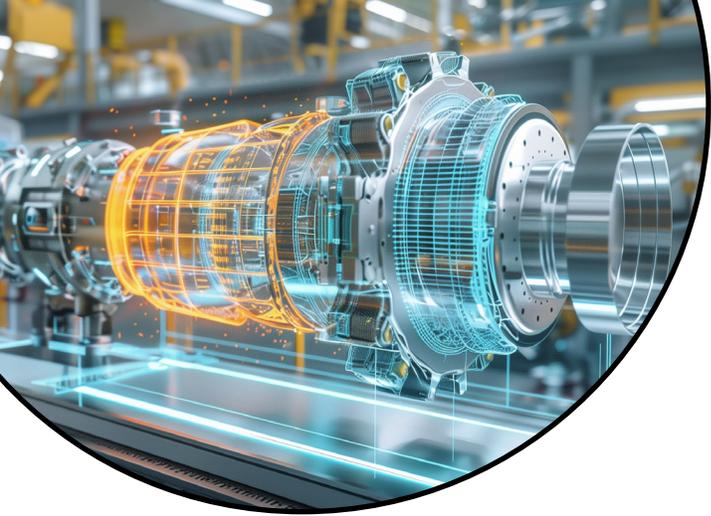
## VISUALIZE IN RICH 3D ENVIRONMENTS

Optimize design, training, operational, and sustainment activities. Immerse users in real-world scenarios as they walk through the twin in the first person, see through walls to assess critical infrastructure, and more.



## STRENGTHEN MISSION ASSURANCE CAPABILITIES

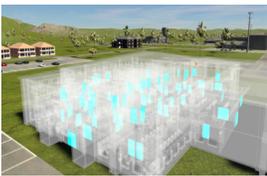
Deploy powerful AI modeling and simulation to elevate institutional knowledge beyond the day-to-day technical details. Identify and mitigate operational deficiencies and threats to mission delivery and outcomes.



## BENEFITS AND CAPABILITIES

Booz Allen's digital twin solutions enable leaders to realize a more accurate representation of the future to inform investment decisions, uncover vulnerabilities and solutions at never before seen speed and accuracy, and unite emerging tech and traditional engineering services to accelerate assessments, increase accuracy and efficiency, and reduce downtime. These solutions can be deployed on-premise, in cloud, or in hybrid environments.

### 1 INGEST VAST AMOUNTS OF DATA AT A HIGH VELOCITY



Leverage operational data gathered and informed from GIS, LiDAR, and BIM – captured over 10 times faster than traditional data collection methods. With this data pipeline, or digital thread, users always access the most accurate and up-to-date information.

### 2 DIGITIZE THE PHYSICAL WORLD



Establish an exact digital replica of all infrastructure and assets – from building to pavement, utilities, and equipment – at all stages of the lifecycle to enable collaborative design, support scenario planning, conduct predictive analysis, and more.

### 3 DELIVER PREDICTIVE ACCURACY WITH AI-DRIVEN ANALYSIS



Harness a wealth of data and algorithmic outputs to visualize and accelerate planning and design, and quickly evaluate alternatives and solutions. Detect anomalies to predict and respond to failure, minimizing unplanned downtime and impact operations.

### 4 OPTIMIZE PERFORMANCE WITH SIMULATION EVENTS



Enhance the asset lifecycle and strengthen installation security and resilience by modeling thousands of training and other “what if” scenarios digitally – from traffic and pedestrian flow to climate impacts and energy usage.

### 5 VISUALIZE OUTCOMES ACROSS PLATFORMS



Display and interact with data across desktop, mobile, virtual, and extended reality to enable greater collaboration and faster, data-driven decision making. Immerse users in a real-time 3D digital twin – with real-world context and understand – to train accurately and test solutions before implementation.

FOR MORE INFORMATION,  
PLEASE CONTACT

[digital\\_twin@bah.com](mailto:digital_twin@bah.com)



#### ABOUT BOOZ ALLEN

Trusted to transform missions with the power of tomorrow's technologies, Booz Allen Hamilton advances the nation's most critical civil, defense, and national security priorities. We lead, invest, and invent where it's needed most—at the forefront of complex missions, using innovation to define the future. We combine our in-depth expertise in AI and cybersecurity with leading-edge technology and engineering practices to deliver impactful solutions. Combining 110 years of strategic consulting expertise with the perspectives of diverse talent, we ensure results by integrating technology with an enduring focus on our clients. We're first to the future—moving missions forward to realize our purpose: **Empower People to Change the World®**.