

BIM FOR UTILITIES: NOT JUST FOR ARCHITECTS

Roger Copeland, PE | Principal, Jacobs Energy & Power Solutions **Christopher Torres |** Senior Technical Specialist, Autodesk

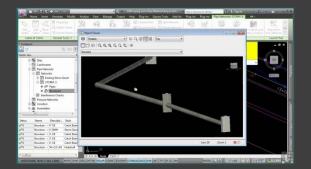


WHAT IS BIM?

BIM is an **intelligent** model-based process that provides insight to help you plan, design, construct, and manage buildings and infrastructure.



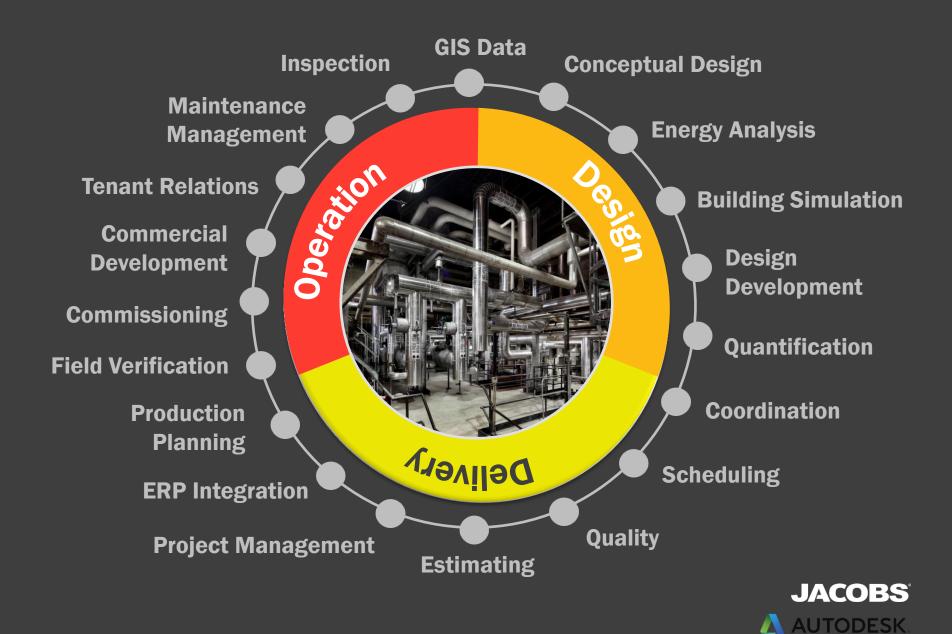
INFORMATION MODELING



S	SSMH
	RIM = 101.00
	24" (N) $ NV N = 91.00$
	0" () INV IN = 101.00
	0" () INV IN = 101.00 24" (S) INV OUT = 90.80
	24 (3) INV 001 – 90.00







Utility BIM = Smart Integration

Design

Construction

Management & Operations





AUTODESK" AUTOCAD" PLANT 3D





INTERGRAPH







Bentley Microstation













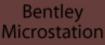
Smart Design INTEGRATION















AUTODESK° AUTOCAD° PLANT 3D

STAAD.Pro

The World's # 1 Structural Analysis and Design Software









DESIGN

Capture Existing Conditions



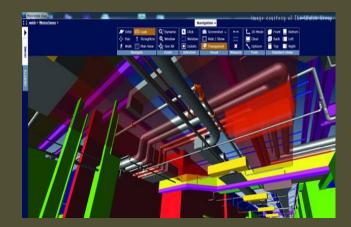
Plan Analyze • e K 🖌 🔁 S 🖶 **•** • • * Visualize



Smart Construction INTEGRATION











CONSTRUCTION



Real-time project analytical reporting



Model-based workflows, link field data to models using barcode technology



Manage quality, safety, documents to the field, progress photos, commissioning & handover



Smart Ownership INTEGRATION



OPERATION AND MAINTENANCE



Building Occupants



Maintenance Management





Connecting Energy Insights with Maintenance Outcomes



Autodesk Building Ops

- Mobile-first maintenance & asset management
- Panoramic power alerts automatically create maintenance tickets
- Maintains asset record and performance history



Panoramic Power

- Wireless, self-powered sensors
- Generates alerts about subperforming assets
- Provides advanced failure detection for equipment through visualization and analysis



Smart BIM – The Future WHAT CAN IT BE?

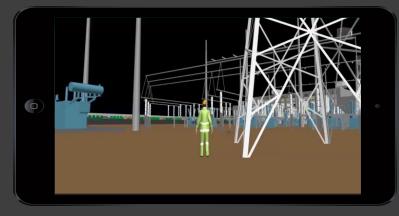


THE FUTURE

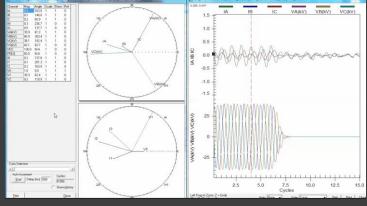


Real-time equipment status and self-healing

Remote visualization for field personnel on smart devices



Real-time engineering analytics and forensics





Summary

✓ What is BIM? Smart Design Innovation Smart Construction Integration ✓ Smart Owner Integration ✓ What CAN it be?



Questions & Ideas



