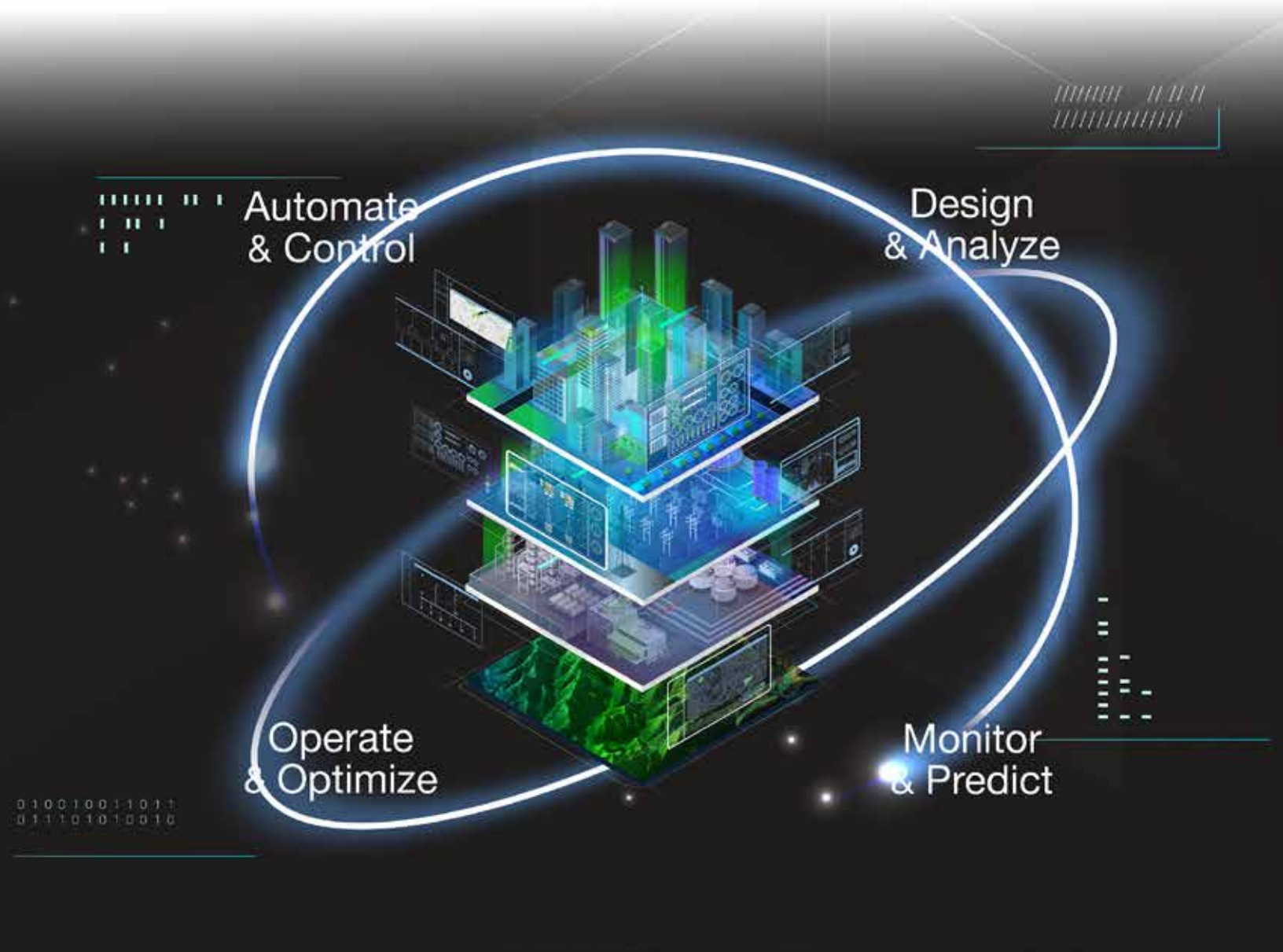
Digital Twin

A Unified Digital Twin Platform

ETAP Digital Twin is a unified engineering and real time platform used to model, design, visualize, analyze, predict, control and provide insight on management and performance of electrical power systems.



A Digital Twin Platform

Design, Operate, and Automate

Automate

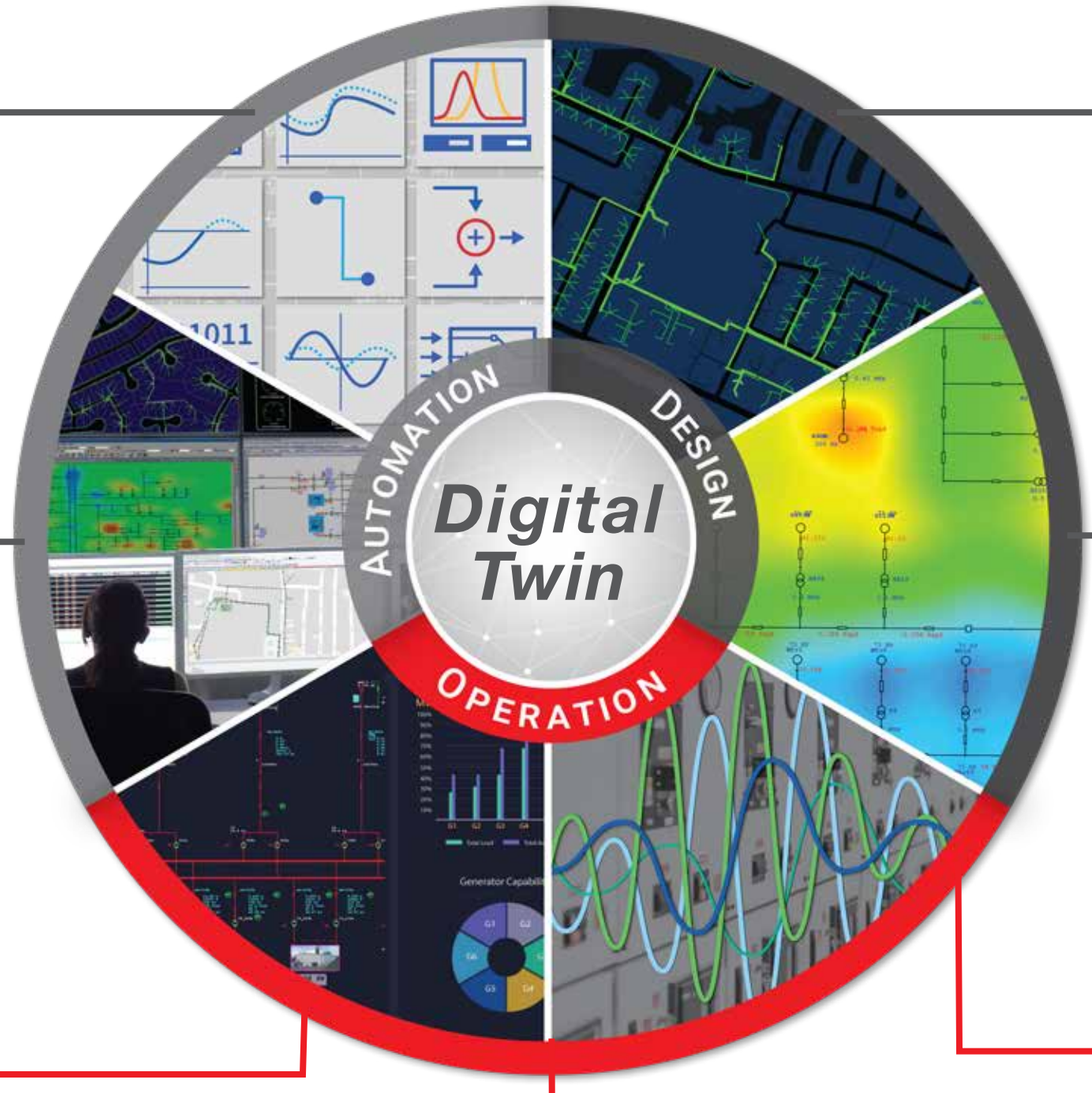
Intelligent Controllers

Microgrid
Nanogrid
Power Plant
Substation Automation
Remedial Action Schemes
Load Shedding & Restoration

Optimize

Proactive Actions

N-n Situational Intelligence
Volt / Var Optimization
Economic Dispatch
Switching Optimization
Automatic Generation Control
Fault Isolation & Service Restoration



Operate & Manage

Operational Awareness

Distribution Management
Switching Management
Outage Management
Load Management
Operator Training Simulator
Protection & Asset Management

Model

Intelligent Visualizations

Field Data Collection & Smart Data Entry
Wide Area Network Modeling Management
Multi-Dimensional Platform for Planning
Line & Cable Sizing, Capacity & Constants
Equipment Sizing & Capacity
Verified & Validated Manufacturer Libraries
Rulebooks & Warehouse

Simulate & Analyze

AC & DC Network Analysis

Unified Multi-Systems
Arc Flash & Safety Systems
Protection & Coordination
Dynamics & Transients
Design & Optimization
Auto-Run Study Wizard

Predict & Control

Predictive Simulation

AC & DC Network Analysis
Grid Code Compliance
Failure Mode Analysis
Reliability Centered Maintenance
Short & Long-Term Load Forecasting

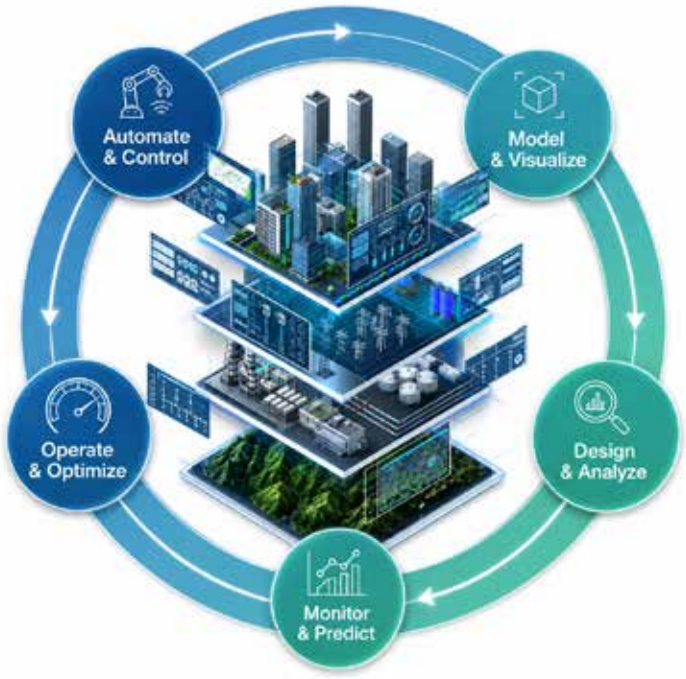
Monitor

Model-Driven Monitoring

Power Management System
Intelligent Electrical SCADA
State Estimation & Load Allocation
Energy Tracking & Accounting
Sequence of Events Playback
Cloud & Mobile Interfaces

Sustainable Digital Transformation

- Increased safety
- Early decision support
- Improved productivity
- Shortened design time
- Validate system settings
- Reduced cost of operations
- Virtual test of operator actions
- Accelerate engineer & operator training
- Identify the cause of operation problems
- Asset performance monitoring & optimization
- Determine under-utilization of system resources
- Eliminate inadvertent outages caused by human error



The unified electrical digital twin

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