



PARA OS at the Nest

Dubai, UAE

How Schneider Electric Extended The NEST into an Immersive Operational Twin

By combining PARA OS backend intelligence with a custom Unreal Engine overlay, The NEST connected live building data to a spatial operating model that supports clearer diagnosis of performance, comfort, fault, and space use issues.

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Schneider Electric's new Dubai office 'The NEST' marked a strategic milestone in demonstrating its leadership in energy management and smart building innovation. As the flagship of Schneider Electric's Impact Buildings Program, The NEST was later awarded WiredScore SmartScore Platinum certification with a score of 100, positioning the headquarters as a reference point for intelligent workplace design.

As part of Schneider Electric's Impact Buildings Program, The NEST also serves as a living lab, where Schneider Electric uses its own commercial real estate to test, validate, and demonstrate how digitalization, sustainability, and human centric design can be integrated into day to day operations.

The building already had a mature digital foundation, including Schneider Electric's EcoStruxure Building Data Platform. The challenge was not lack of data. It was the need to make live building intelligence easier to interpret, investigate, and use in daily operations.

Facilities teams needed to understand building behaviour in relation to the spaces and assets affected. Comfort conditions, system performance, equipment faults, and occupancy patterns could not be assessed effectively if teams had to rely on separate technical views and manual cross checking across platforms.

Schneider Electric therefore required more than a standard operational intelligence deployment. The engagement needed to combine PARA OS backend capability with a custom immersive interface that could translate operational data into a practical spatial experience for the NEST.





Our Approach

The engagement combined a full PARA OS backend deployment with a bespoke immersive overlay developed in Unreal Engine for the NEST. PARA OS provided the operational intelligence foundation, including data structuring, semantic modelling, analytics, and live performance logic. The custom Unreal Engine overlay translated that intelligence into an interactive 3D environment designed around how facilities teams navigate the building.

PARA OS connected to Schneider Electric's EcoStruxure Building Data Platform and structured more than 10,000 live data points into a single semantic model, refreshed every 10 minutes. This created a consistent operating layer above the building's existing digital ecosystem, without replacing Schneider Electric's source systems or data foundation.

In parallel, the building's BIM data was converted into a real time 3D environment using Unreal Engine. This created a spatial operating interface where users could move through the headquarters by floor, zone, room, and asset. The practical value was not visualisation alone. It allowed operational information to be interpreted in the context of the physical environment.

The deployment covered four operational modules:

- **Energy Intelligence:** Tracks consumption, demand, and key indicators such as Energy Use Intensity across the building hierarchy.
- **Fault Detection and Diagnostics:** Connects equipment analytics to asset and system relationships, improving the precision of issue identification.
- **Occupant Wellbeing:** Monitors thermal comfort, air quality, sound, and lighting through comfort related KPIs.
- **Space Utilization:** Links occupancy patterns with the building layout to show how spaces are used over time.

This approach created a practical operating layer above the building's existing systems. It preserved Schneider Electric's digital building ecosystem while making live operational data easier to navigate, interpret, and act on.

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Results

The deployment proved that The NEST could be managed through an immersive operational twin that extends beyond a standard platform rollout. The baseline insight was clear: Schneider Electric already had a strong building data layer, but facilities teams needed a more practical way to connect operational signals to physical context.

PARA OS addressed the intelligence layer by structuring more than 10,000 live data points and refreshing operational information every 10 minutes. The deployment processes more than 1,000,000 data values per day, demonstrating the scale and robustness of the operating model.

The custom Unreal Engine overlay addressed the user experience layer. It gave The NEST full headquarters spatial coverage, asset level mapping of major systems, and room level environmental visibility. Facilities teams can navigate the building digitally, locate where issues occur, and understand which systems or assets are involved.

The validated outcome is a shift from fragmented monitoring to spatially aware operations. Teams rely less on manual correlation across separate interfaces and gain a clearer basis for diagnosing performance, comfort, fault, and space use issues.

At asset level, The NEST now has a scalable immersive operational twin foundation. It combines Schneider Electric's EcoStruxure Building Data Platform, PARA OS backend intelligence, and a custom 3D operational interface into one applied model. The broader value is repeatability: the engagement established a proven playbook for extending PARA OS through bespoke immersive development where complex assets require both analytical depth and intuitive operational interaction.

