

Never Compromise on Your Design Again

Providing on-demand airflow insights, Orbital Stack AI helps you design desirable climate-conscious buildings—quickly and cost effectively from day one.

Climate-conscious spaces, with inviting outdoor amenities, maximize property value and performance.

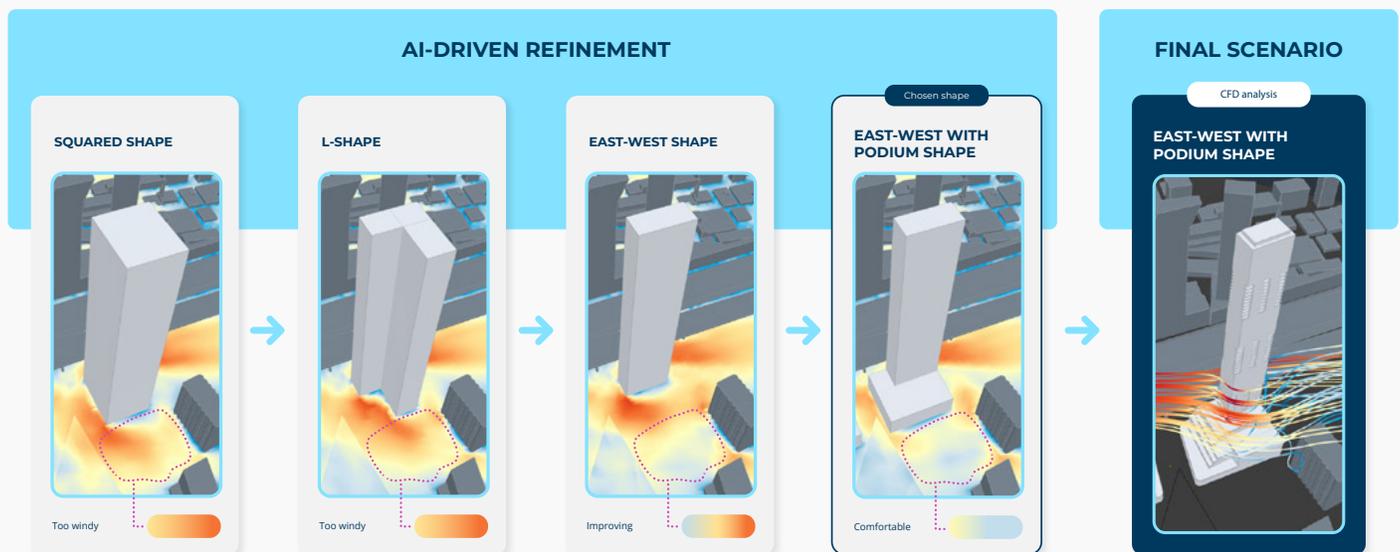
By providing on-demand analysis, Orbital Stack AI lets you leverage wind performance insights from day one to design climate-informed buildings that:

- Stand out in design competitions
- Preserve user comfort and safety in a range of weather conditions
- Extend the seasonal availability of outdoor spaces and amenities
- Attract more foot traffic to ground-level businesses

Why Orbital Stack AI?

- Win more projects
- Maximize property value
- Reduce risk
- Lower project costs

Reimagine your early design process to avoid unexpected changes later on.



Orbital Stack was created by a multidisciplinary team at RWDI, the global leaders in understanding how the local environment and climate impact large-scale structures (and vice versa). Using RWDI's urban windflow dataset—the largest in the world—we created a first-of-its-kind wind simulation AI that eliminates the capital, expertise, and computational hurdles of legacy approaches.

By providing on-demand airflow analysis, this transformational solution empowers you to:

- Explore and test different massing iterations from your earliest concept
- Validate performance and uncover potential problems early in the design process
- Apply microclimate analysis to every project, no matter the size

AI-powered wind analysis that will blow you away!

Outdoor comfort and cladding analysis made easy

Designed by users, for users, Orbital Stack equips you with robust outdoor comfort analysis that's:

⚡ Fast

- Get started on day one
- On-demand analysis enables iteration
- Results in less than 2 minutes

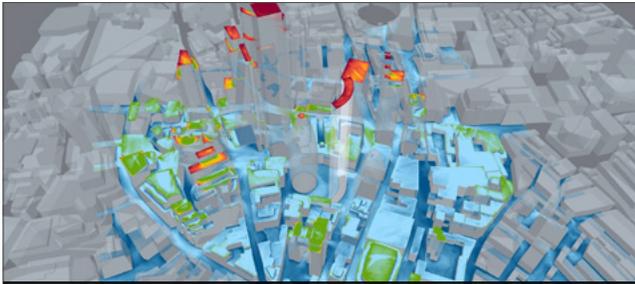
💰 Affordable

- Flexible pricing packages
- Simulation for the price of a coffee
- Avoid costly workflow slowdowns

💡 Understandable

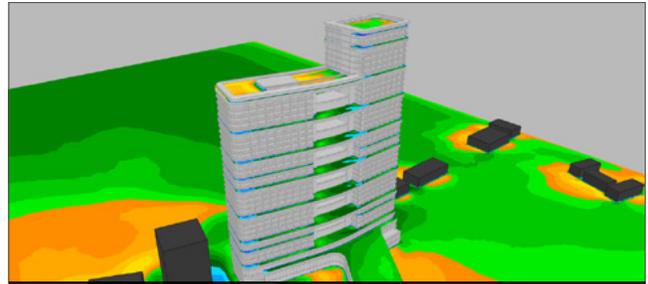
- No specialized skills needed
- Clear legends and display options
- Training and tutorials available

Wind Comfort Analysis



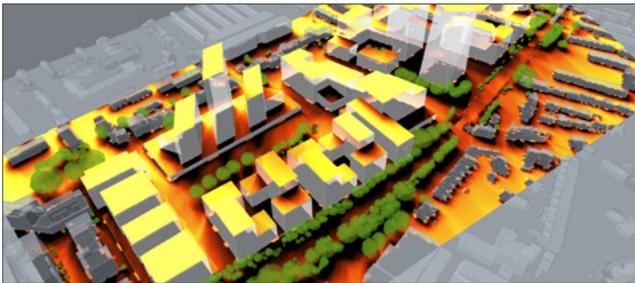
Vivid renderings showcase the comfort of outdoor spaces and their suitability for different activities (e.g., sitting, strolling).

Thermal Comfort Analysis



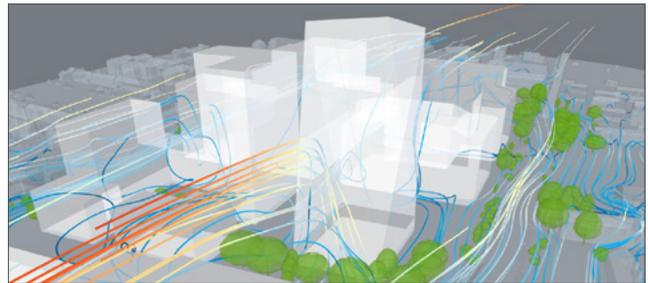
Objective metrics (e.g., SPMV*, UTCI) reveal which areas are comfortable and which aren't, allowing designers to identify where mitigations may be needed.

Shadowing Analysis



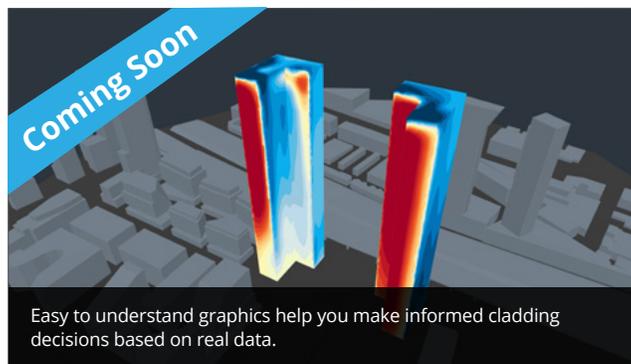
Areas of light and shade become clear as day, helping to guide designs that make effective use of the outdoor environment.

Airflow Analysis



Streamlines bring wind patterns to life, creating an intuitive understanding of how different flows shape local conditions.

Cladding Pressure Analysis



Easy to understand graphics help you make informed cladding decisions based on real data.



Allies and Morrison



KrueckSextonPartners



Ready to join other world-class architects and take your designs to the next level?

Connect with us at sales@orbitalstack.com or visit www.orbitalstack.com to learn more.