



HELYX[®]

FEATURE MATRIX

**Architectural Engineering and
Construction (AEC) Industry**



Architecture, Engineering and Construction (AEC) Specific

HELIX
CORE

HELIX
GUI

HELIX
ADJOINT

HELIX
MARINE

HELIX
COUPLED

GENERAL

Steady-state Flow	●	●			●
Transient Flow	●	●			●
Turbulence - Unsteady (LES/DDES)	●	●			
Turbulence - Synthetic Inflow Turbulence Generator	●	●			
Forced, Mixed and Natural Convection	●	●			
Conjugate Heat Transfer	●	●			
Thermal and Solar Radiation Modelling	●	●			
Passive Scalar Modelling	●	●			
Active Species Transport Modelling	●	●			
Atmospheric Boundary Layer Inflow Boundary Conditions	●	●			
External Convective Heat Transfer Boundary Condition	●	●			

APPLICATIONS

Fire Modelling	●	●			
Smoke Propagation & Control Analysis	●	●			
Building Façade Optimisation			●		
HVAC	●	●			
Wind Loading Analysis	●	●			
Pedestrian Wind Comfort & Safety Analysis	●				
Pollutant Dispersion Modelling	●	●			
Wind-driven Rain Deposition Analysis	●				

OTHER RELATED

Lawson Criteria for Pedestrian Comfort & Safety Assessment	●	●			
Fractional Effective Dose Calculation Tool	●	●			
Predicted Mean Vote (PMV) ISO Standard 7730:2005	●	●			
Predicted Percentage of Dissatisfaction (PPD) ISO Standard 7730:2005	●	●			
Draught Rating (DR) ISO Standard 7730:2005	●	●			
Operative Temperature (Top) ISO Standard 7730:2005	●	●			
Universal Thermal Climate Index (UTCI)	●	●			
ASHRAE-55:2017 - SET Correction of PPD & PMV from ISO 7730:2005	●	●			
ISO 7933:2004 - Comfort Indexes for Working Environments	●	●			
Mean Radiant Temperature (Tmrt)	●	●			



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