

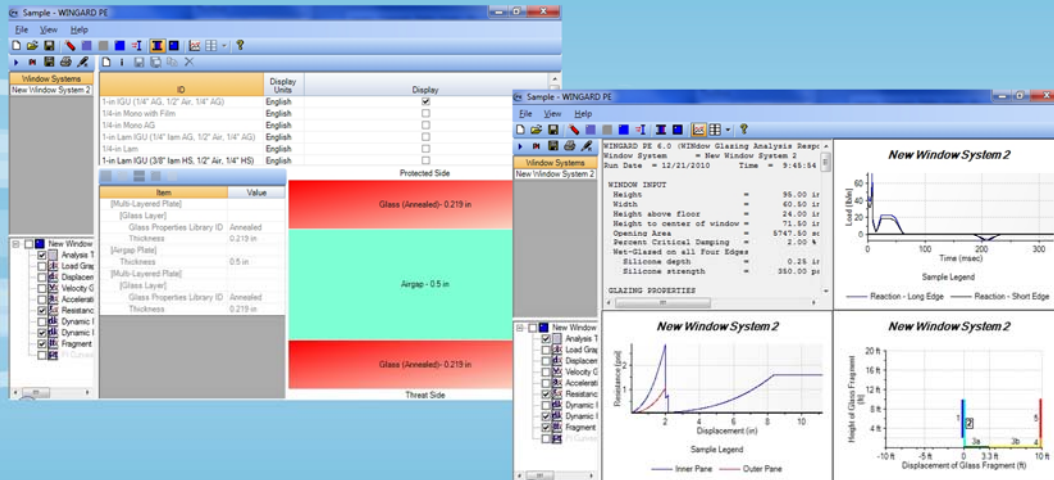


# WINGARD PE

PROFESSIONAL EDITION

WINDOW Glazing Analysis Response and Design (WINGARD) provides an accurate analytical model of window response to the effects of an explosion. The program accepts user input of window system properties and explosion characteristics, and then calculates the performance of the window system when subjected to the defined blast loads. Two versions of WINGARD are available for punched window analysis: WINGARD LE and WINGARD PE.

WINGARD PE is the more powerful version, designed for blast and glazing specialists. It provides the user significantly more control over the glazing and loading models and allows for the simultaneous analysis of multiple window openings. WINGARD PE also provides the user with output details not available in WINGARD LE.



## Specific features of WINGARD PE include the ability to:

- Quickly model a variety of glazing systems and predict glass fragment hazard
- Calculate and display time-history plots of loading, displacement, velocity, acceleration, and reactions
- Model a wide variety of glazing systems ranging from simple, monolithic systems to complex insulating glass units (IGU's), including multi-layered and ballistic-resistant materials
- Create user-defined libraries of glazing, laminate, and film properties
- Simultaneously evaluate multiple window openings
- Automatically determine glazing capacity
- Generate Pressure-Impulse curves



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