

RESP-D

Inelastic time-history analysis program for architectural structures

RESP-D is an integrated structural computation program for architectural structures that require time history response analysis.

- ◆ Stress analysis
- ◆ Static push over analysis
- ◆ Non-linear response analysis(direct integration)

< Creation of building model >

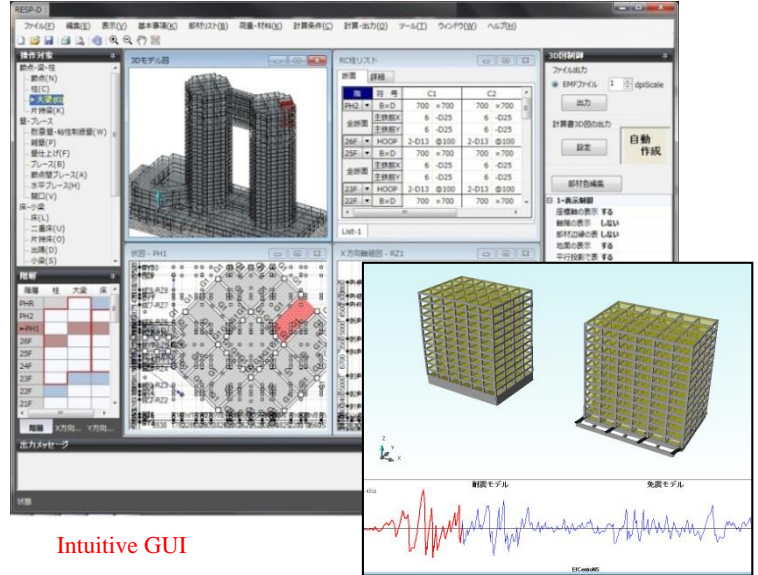
- An intuitive user experience with CAD like mouse operation.
- Implemented functions such as automatic member arrangement and floor grouping function based on the XY grid for a quick building model creation.

<Features for Seismic-response controlled structure and seismic-isolation structure>

- Seismic isolation and damping devices database included in the program.
- An easy parameter study by with less complicated procedures to define and allocate the devices.

< Creation of animation >

- Standard feature that enables to create both output response diagrams & animation from analysis result.
- Response comparison animation of up to two buildings in a row



Intuitive GUI

Animation example (comparison of response characteristics for a base isolated building and an earthquake resistant building)

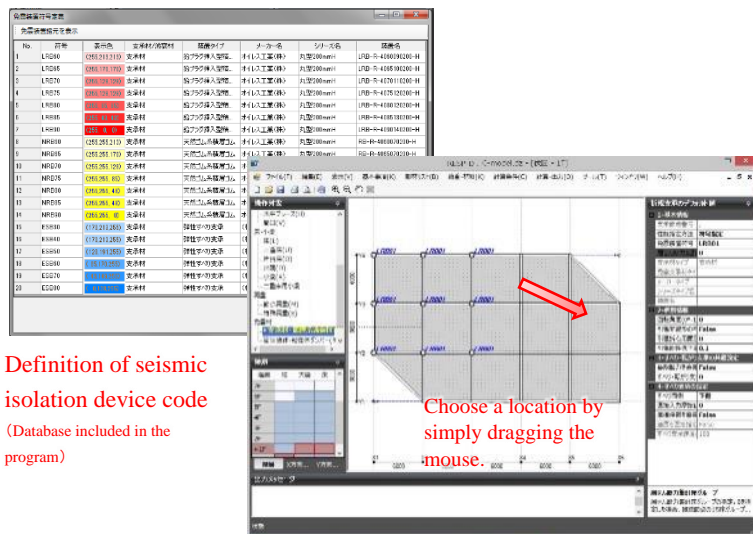
< Types of supported seismic isolators and seismic-control devices>

- Lead rubber bearing
- Elastic sliding bearing
- Oil damper
- Buckling restrained brace
- Damping walls
- Stud-type steel damper etc.

< Practical accomplishment >

- **Store, office and residence (Reinforced Concrete structure, 27 floors)**
Response analysis of middle-story isolation structural system for twin tower
- **Office and hotel (Steel structure, 35 floors)**
Coupled Analysis of high rise seismic isolation twin tower
- **Electric power plant (Steel structure, 3 layers)**
Assessment of seismic safety of a turbine building
- **Collective housings (Reinforced Concrete structure, 8 floors)**
Retrofit analysis of outer-frame oil damper

...and more!



Definition of seismic isolation device code (Database included in the program)

Choose a location by simply dragging the mouse.

Locate seismic isolation devices