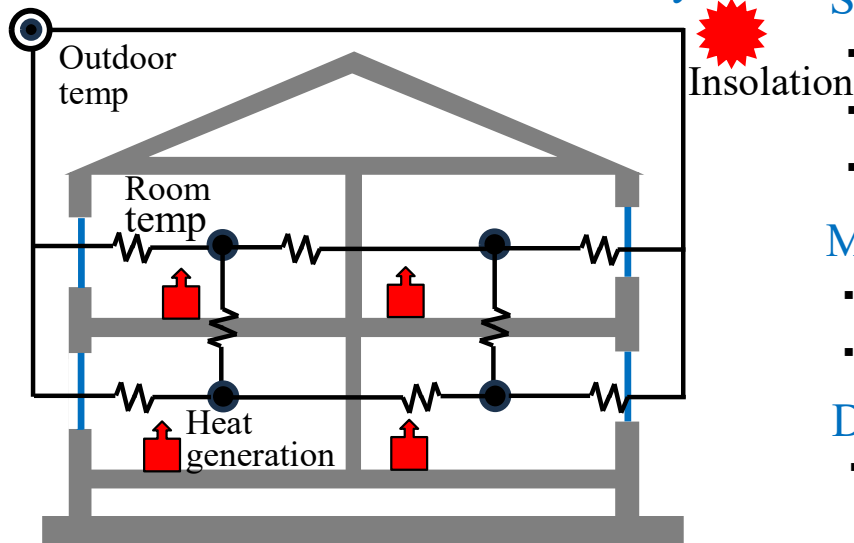


Thermal network System identification Calculation program SPID

Multi-chamber thermal performance measurement

(System identification of heat transfer system)



System identification coefficients :

- Through-wall thermal conductance
- Equivalent heat capacity of the room
- Room solar heat gain coefficient

Method for system identification :

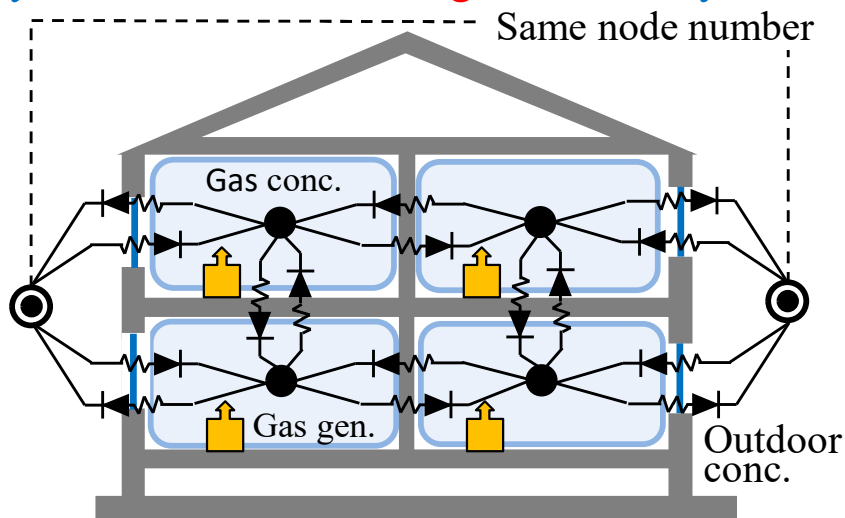
- (Principle) Least squares method
- (Regression equation) State space equation

Data for system identification :

- Time series data of outdoor temp, solar radiation, each room temperature and heat generation

Multi-chamber airflow rate measurement

(System identification of gas transfer system)



System identification coefficients :

- Inter zone airflow rates
- Effective mixing volumes

Mathematical models and calculation programs can be used for thermal networks

Method for system identification :

- (Principle) Least squares method
- (Regression equation) State space equation

Data for system identification:

- Time series data of outdoor air concentration, each room concentration and gas generation