ANSYS MODEL for building in Taufkirchen

This is the building model used for the MDSI project: MSDI page

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Run the model

1. Specify the path of folder and open the APDL
2. Run the line: /input,'main','mac' or copy the script in main.mac directly then paste to the command window (optional).

Files management

1. ANSYS_Building_model/PREP: Folder for preprossesor
    - BuildPara_Var.mac : Material properties and parameter
    - BuildGeo_TK.mac : Geometry of the building
    - SSI_LPM_para.mac : Parameter of LPM for SSI
    - MAT27_elem.mac : Assign the material
    - properties to element for SSI

2. ANSYS_Building_model/SOLU: Folder for solver
    - Modal_Analysis.mac : Modal analysis

3. ANSYS_Building_model/POST: Folder for postprossesor

Parameter

- General:
    - bool_check_real_shape : Plot the building in mesh with defined thickness.

- Preprossesor:
    - bool_inner : Control whether build the inner wall
    - bool_stair : If both bool_inner = 1 and bool_stair = 1, then stair will be built
    - bool_SSI : Control soil-structure interection (MATRIX27)

- Solution:

- Solu_type : ANYTYPE (APDL) if 2 = Modal, 3 = Harmonic, 4 = Transient analysis