SANSPRO V.5.30 Release Notes:

02-02-2024

1. New Features

Due to the use of new **Dynamic Array system**, SANSPRO V.5.30 is **very fast**. Typically **3-5 times faster** that previous version. This speed is helpful when conducting Time History Analysis which requires thousands of matrix operations.

1. Modify Fa,Fv,Ss,S1 for Near Fault Condition
2. Control Parameter for Performance Based Design (for future use)
3. Unfactored Loadcomb at separate table
4. Maximum Drift limit can be different in X,Z direction following shearwall condition
5. Coordinate offset in X,Z directions for inclined building and curved facade
6. Edit facility for multiple beam load type
7. Coordinate offset in Y directions generator for curved shape roof
8. Dome Roof shape Generator
9. Cone and Pyramid roof shape generator
10. Format Error in reading Foundation data file, fixed
11. More parallel processing to speed up graphics and calculation, faster for computer with multiple core and supporting AVX2 or AVX-512 (AMD Zen 4 CPU series 7000 or above, Intel Xeon, Intel Skylake i9/i7, Cascade Lake i9)
12. Glulam G-nn wood grade (PT Kayu Lapis Indonesia)
13. Virtual Memory is now obsolete, Dynamic Arrays are now used for all variables
    Large Memory will be needed, minimum of 8 GB recommended for 32-bit version and 16 to 64 GB for 64-bit version
14. Increase analysis speed from changing to Dynamic Arrays = 3.0 to 5.0 times
15. FEM Data export using Direct memory will give faster response
16. Generate shell elements from Slab Region using user defined element size
17. Faster Stress and Moment contour drawing for Shell element
18. Ground Motion Dataset read, display and select (Export and Read)
    (Ground motion must be scaled or modified accordingly before used in Sanspro)
19. Linear Time History Analysis using selected Ground Motion
20. Faster Linear Time History Methods,
    Explicit : Constant Acceleration,
    Implicit : Newmark-Beta, Wilson-Theta or Hilber-Alpha Method
21. Soil Data, Soil Profile and Automatic Foundation design using closest Soil Data
22. Preliminary Prestressed Beam Design
23. Pile Foundation design using axial and lateral load capacity for gravity, moderate and extreme earthquake conditions

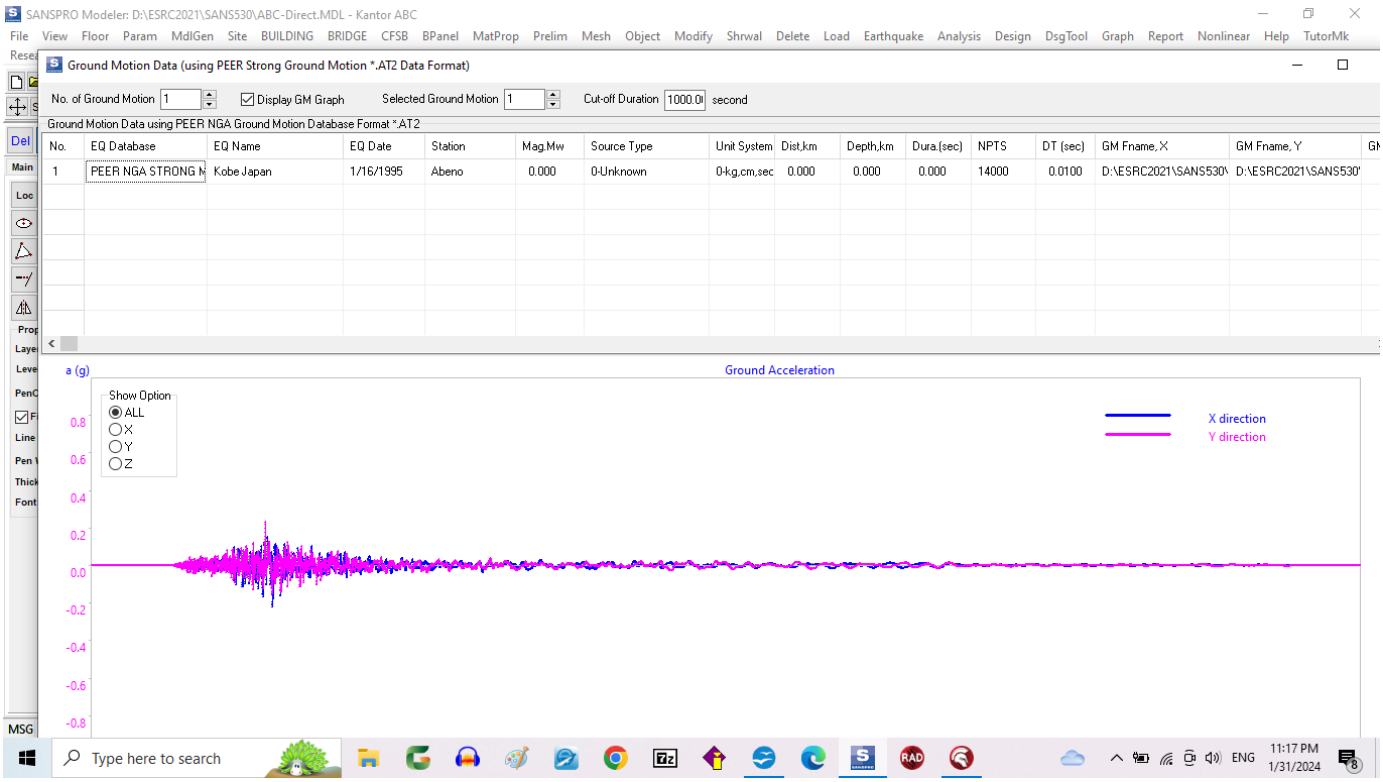
2. New License and Upgrade Price

New Personal License	: Rp. 7,000,000,-
New Corporate License (2 users)	: Rp. 12,000,000,-
Upgrade Price	: Rp. 1,000,000,- to Rp. 3,500,000 depends on version

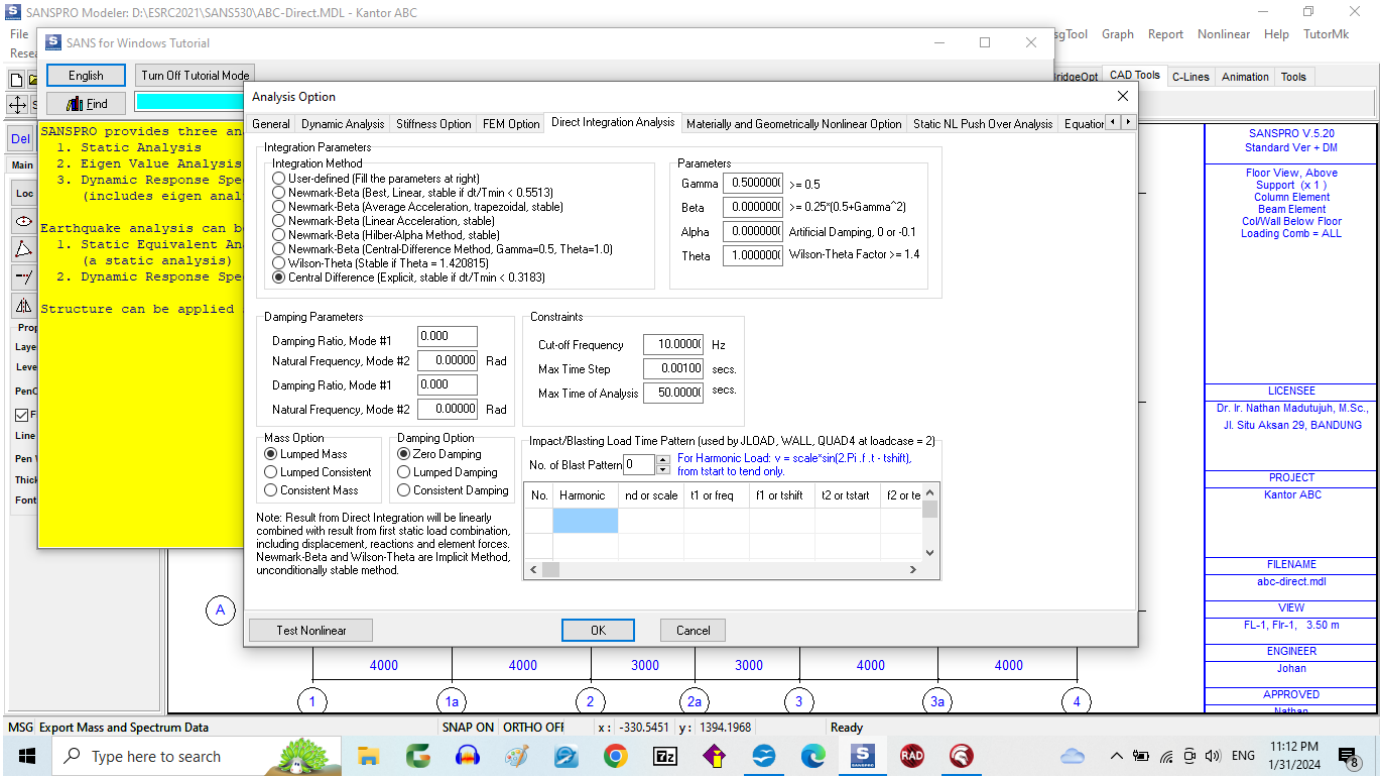
3. Contact Info

Ms. Devy Valianty (ESRC)
WA: 0838-2084-2452 (Office hours)

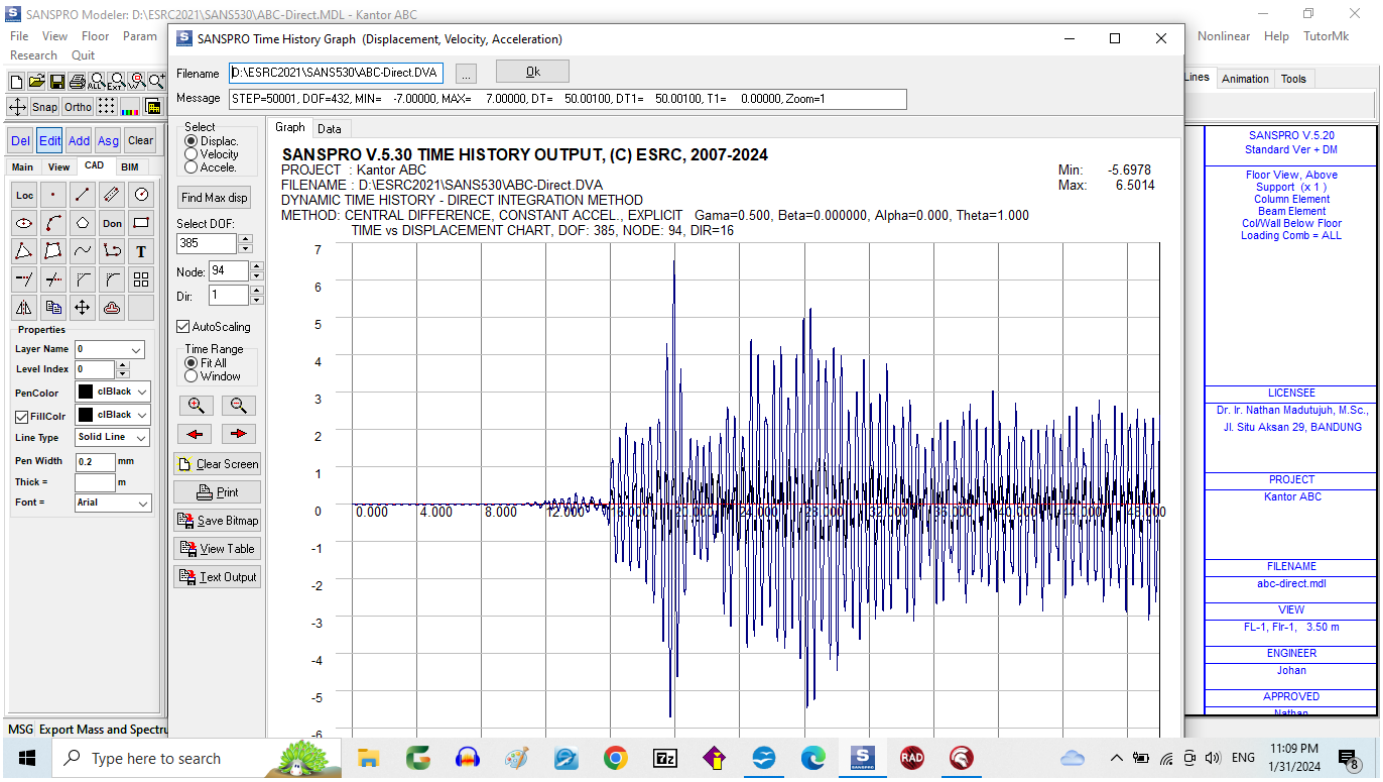
Earthquake Ground Motion Data



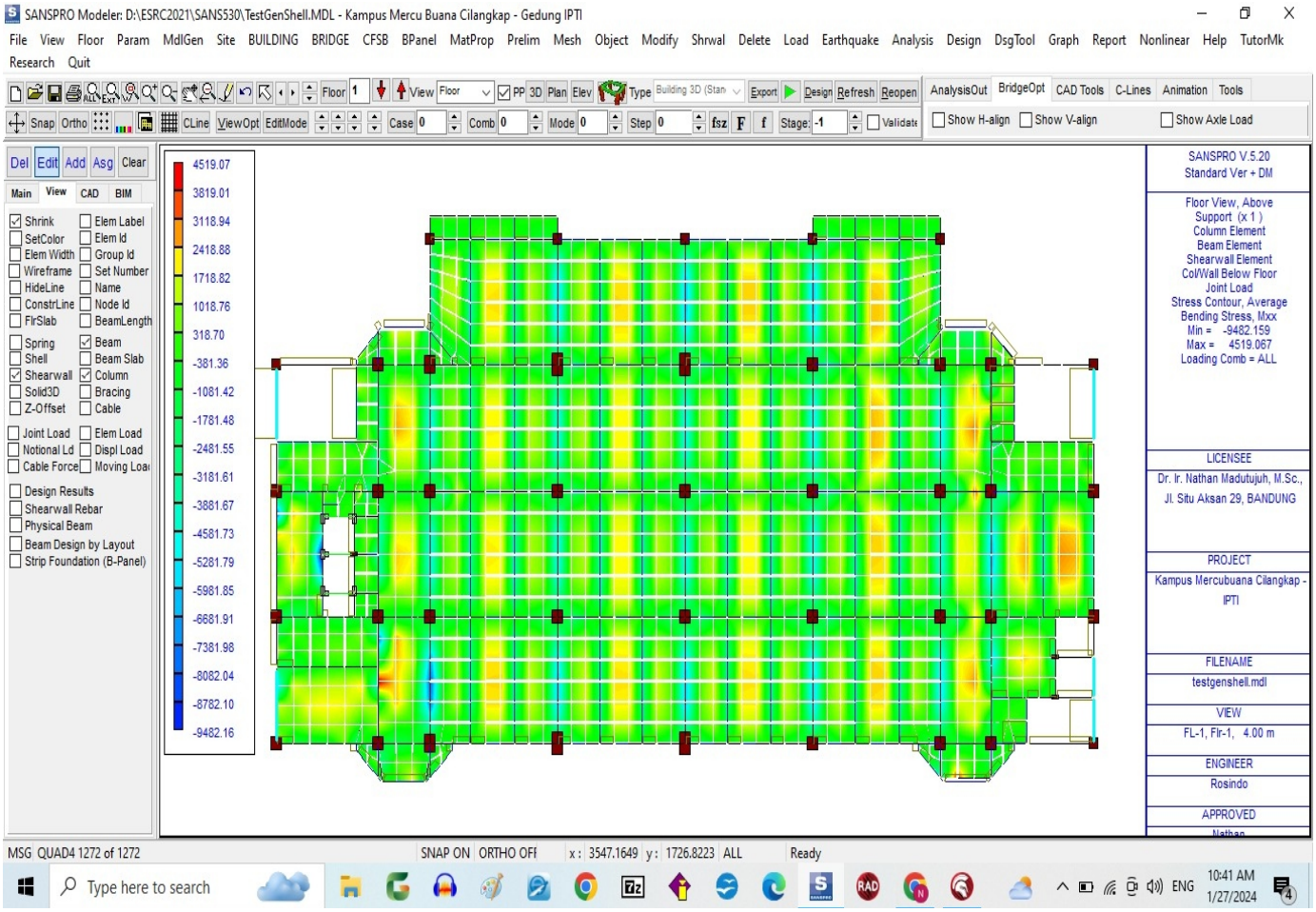
Time History Analysis – Direct Integration Method (LTHA)



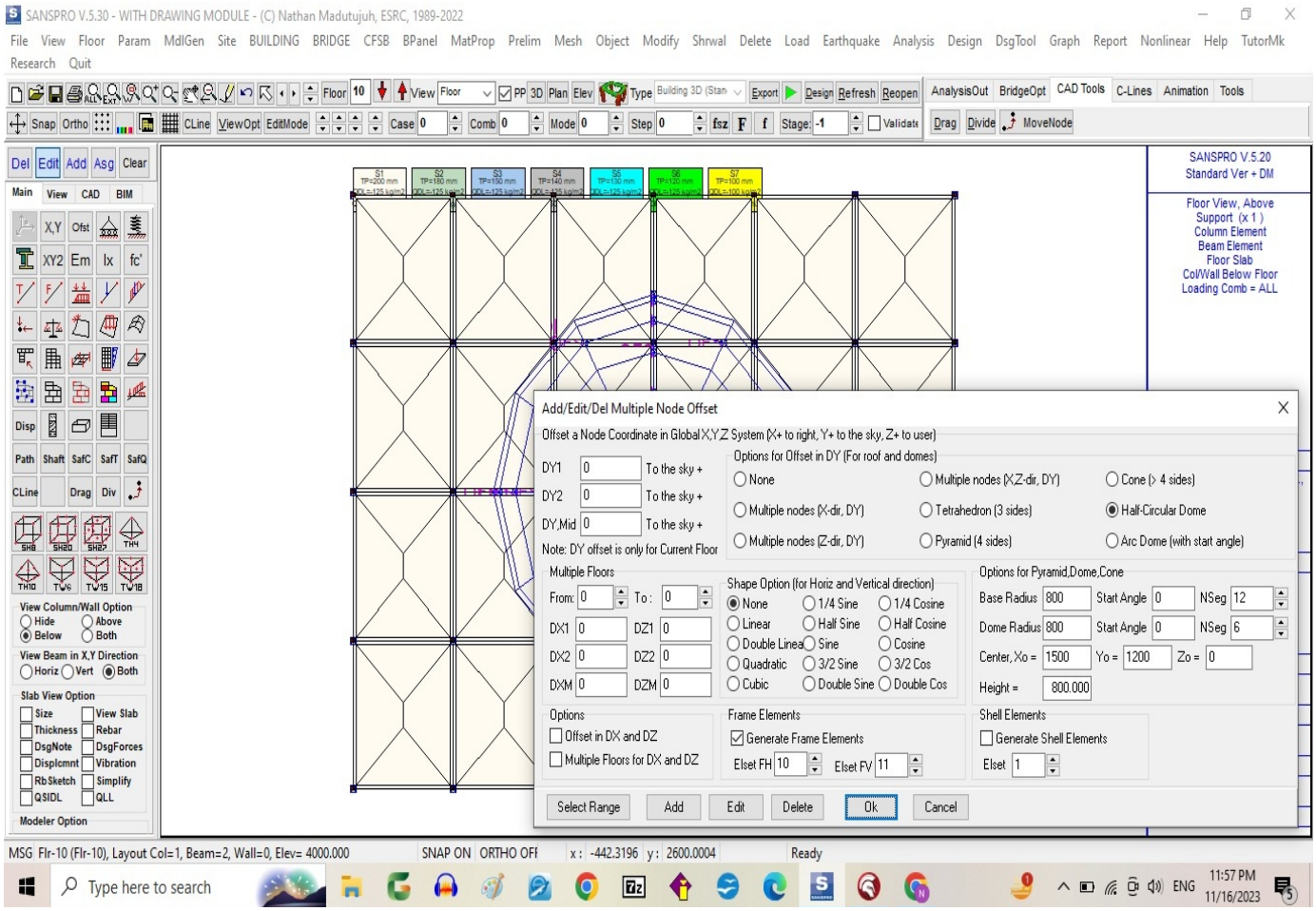
Time History Analysis Output Post-Processing



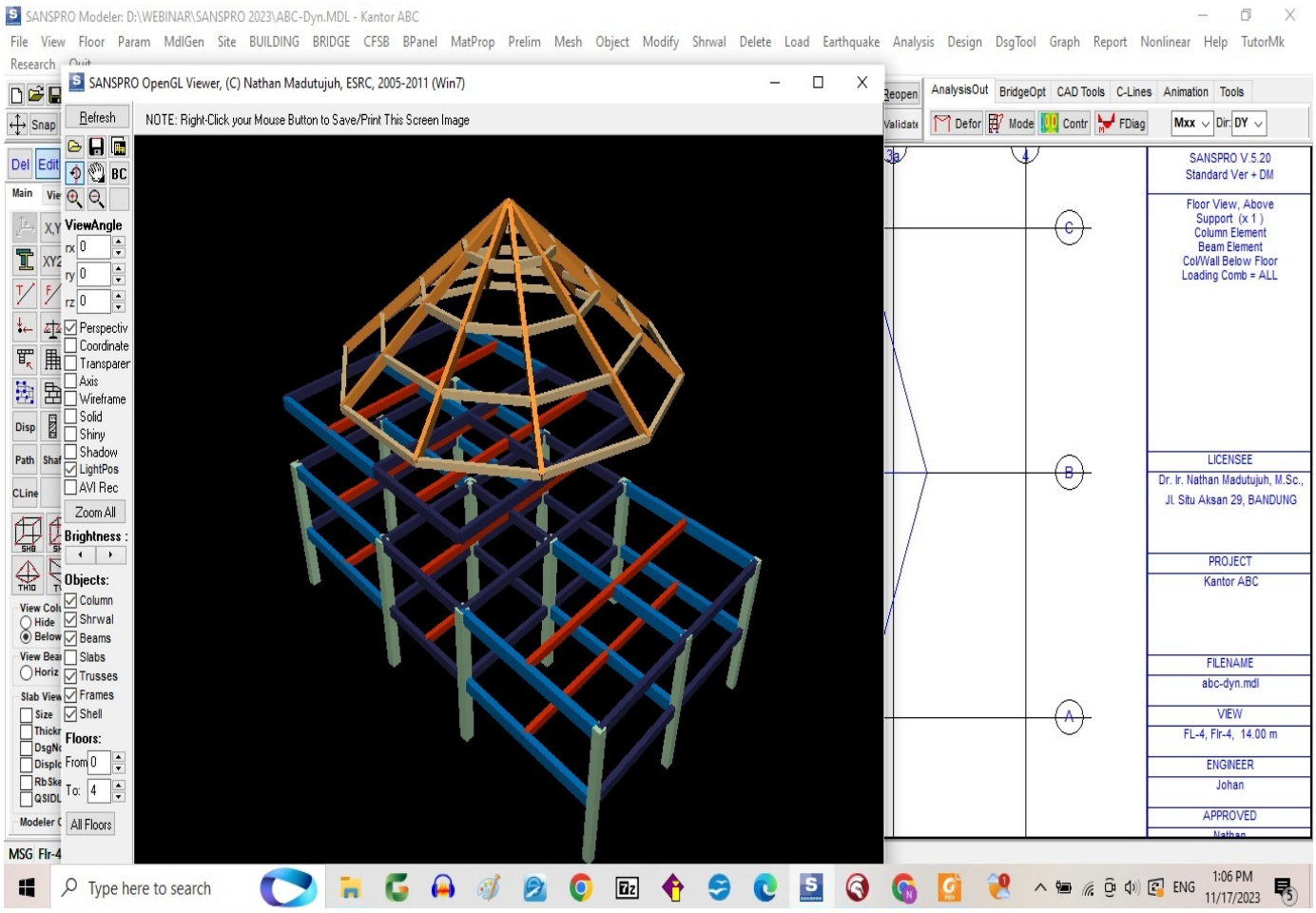
Semi-rigid floor slab generator using Shell element



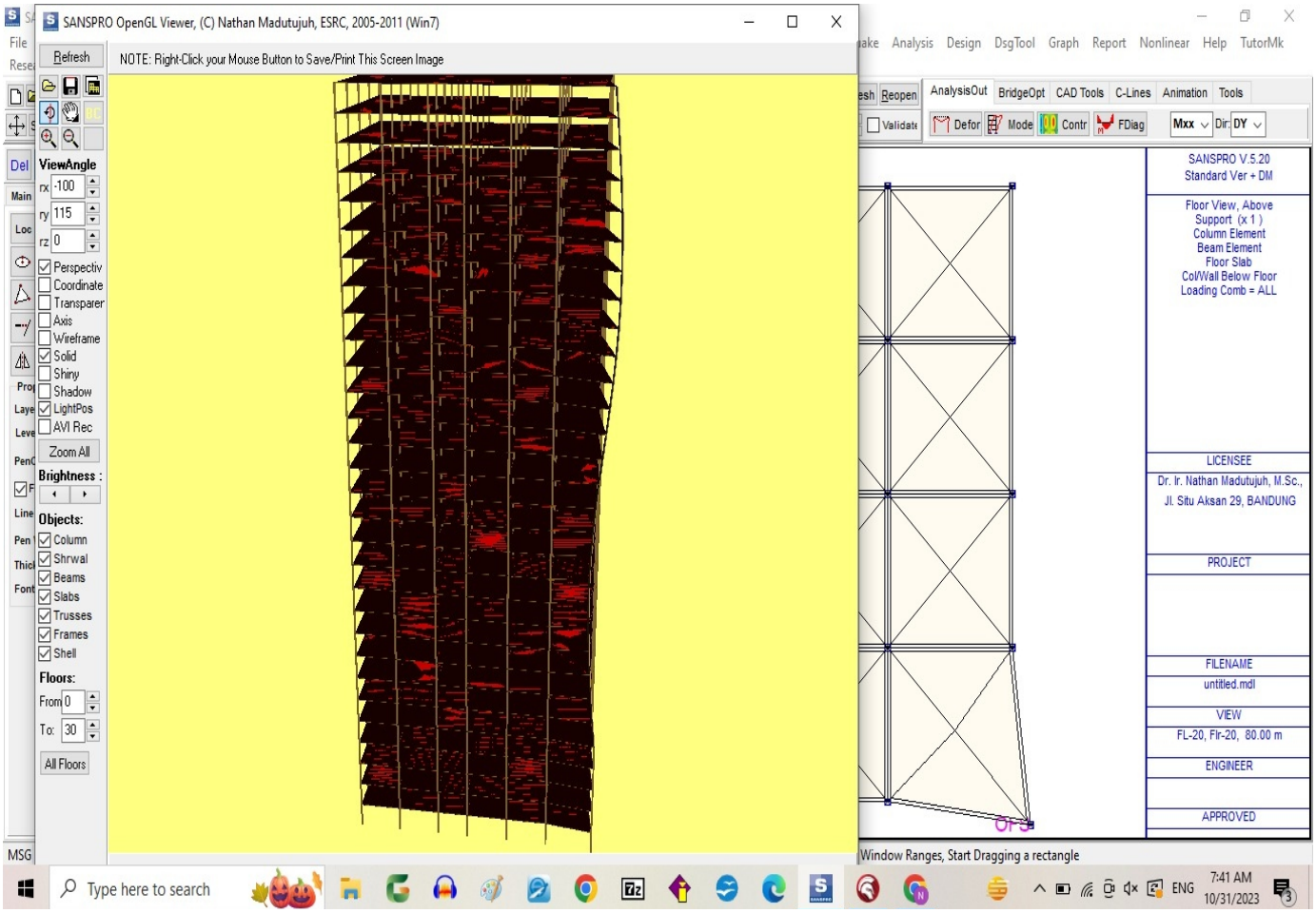
Dome Generator



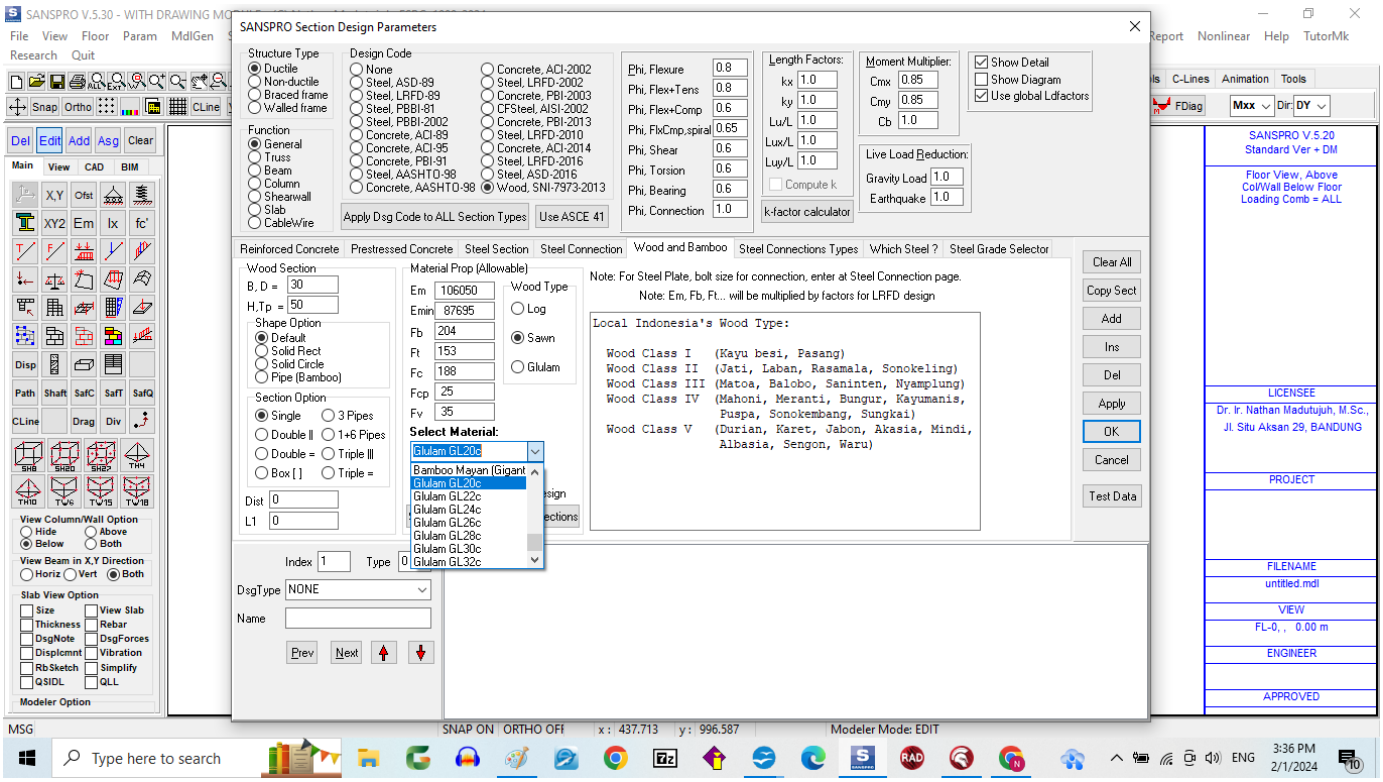
Dome Generator



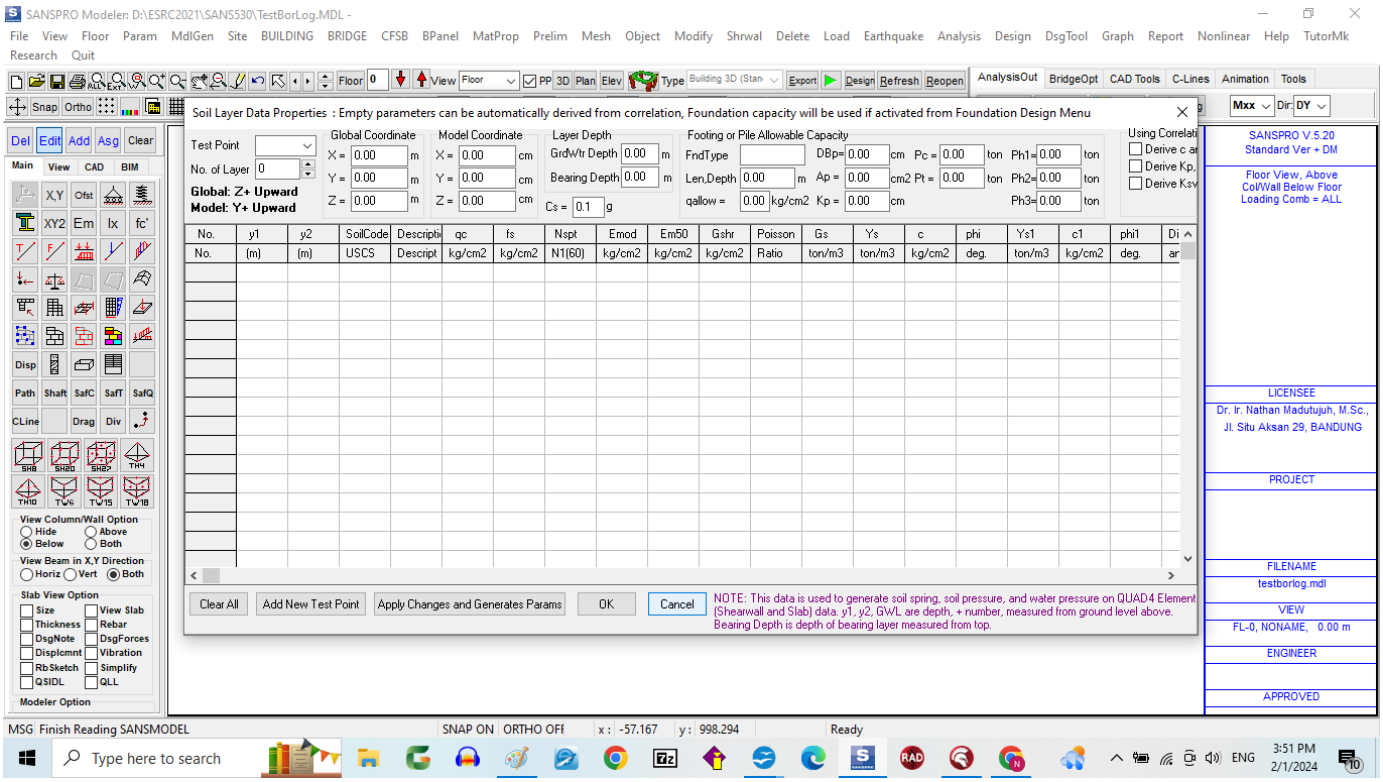
Non-Vertical Buildings Facade (Inclined or curved)



Glulam Wood Design Data



Soil Data and Soil Profile



Pile Foundation Design