

Introduction

midas Modeler generates 3D analytical models for Gen 2009 - Building & General Structure Design program, which is an innovative software product that raises the modeling concept to new heights.

midas Modeler automatically interprets 2D architectural CAD drawings and efficiently generates 3D structural models using the Working Panel feature.

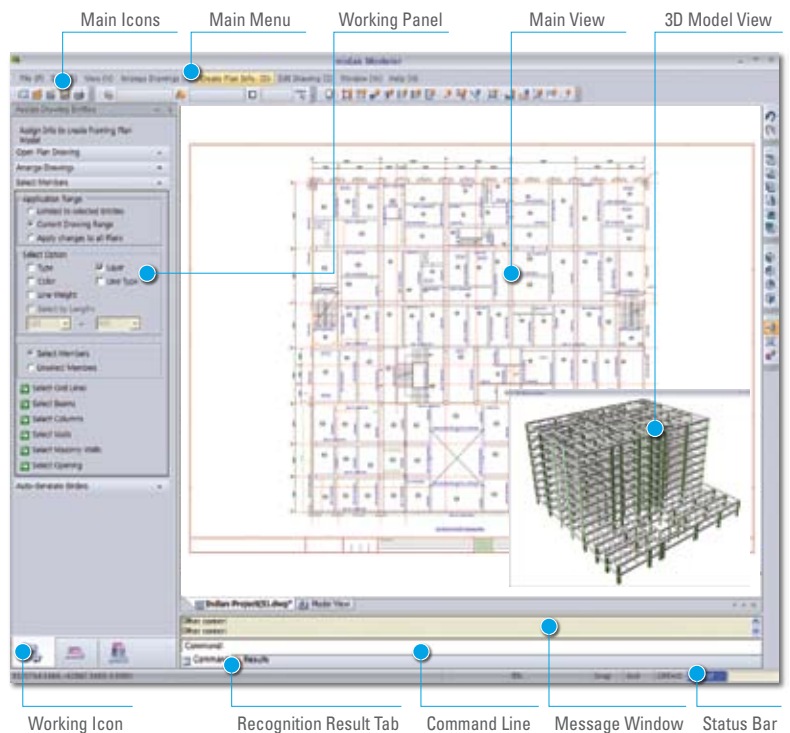
midas Modeler recognizes architectural CAD drawings and effectively creates structural models automatically. It is a very convenient preprocessor for analytical modeling, which bridges the gap between architectural 2D CAD drawings and structural analysis models.

Any changes made in architectural drawings in the design process can be easily updated in the analytical model using midas Modeler.

Main Features

- Innovative approach to modeling from architectural DWGs
- Accurate modeling for structural analysis
- It minimizes modeling errors
- Quick and easy model modifications
- Efficient modeling saves design time and leads to economical design

midas Modeler Framework

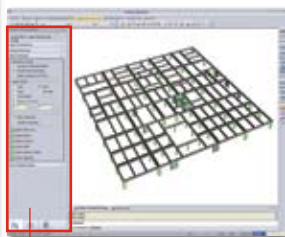


Working Panel

What is Working Panel?

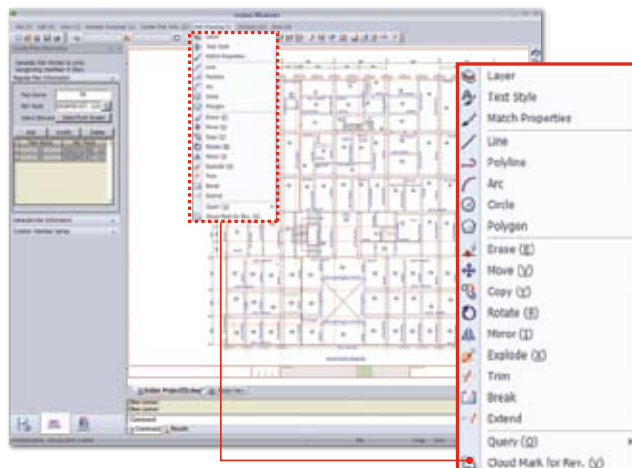


This panel displays correct procedures for structural modeling.



Similar Functions with AutoCAD

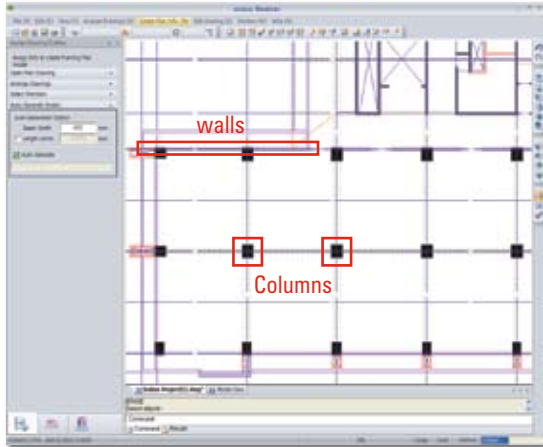
midas Modeler provides similar basic functions as AutoCAD for quick user adaptation. Users can then easily modify the drawings. Also, all the commands for editing are the same as AutoCAD.



Automatic Generation of 3D Structural Analysis Model

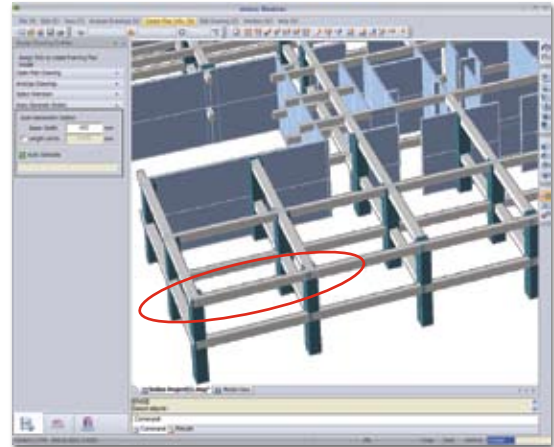
Automatic Generation of Girders

Horizontal members (Girders) are not displayed in the architectural drawings, but midas Modeler automatically generates **Lintels** that span openings and generates **girders** that connect columns.



[Automatic Recognition of Columns & Walls]

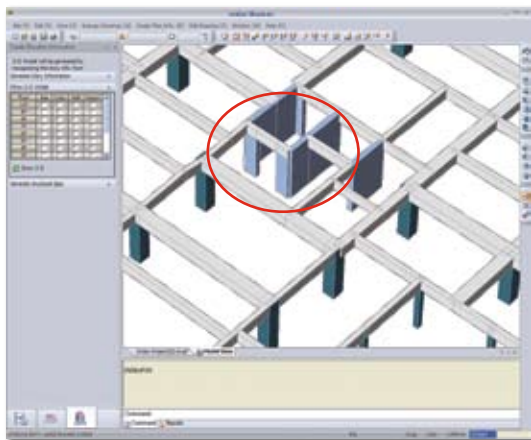
Auto Generation



[Automatic Generation of Girders]

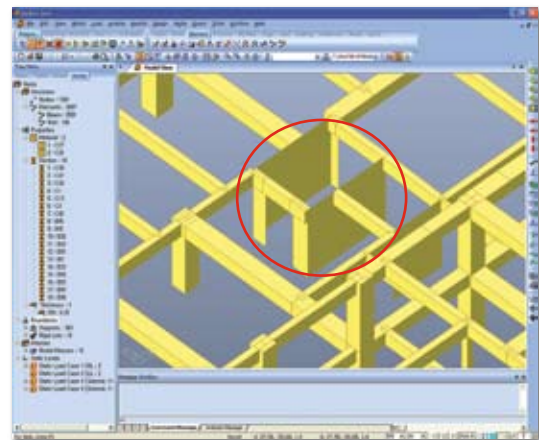
Modeling Openings in Walls

- Quick modeling of openings in walls
- Automatic generation of openings in walls by recognizing configuration of neighboring walls
- Accurate analysis of wall elements with openings



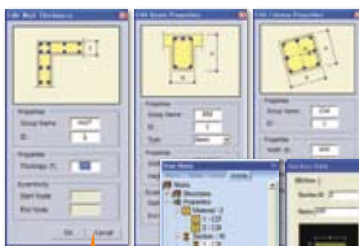
[midas Modeler]

Export



[midas Gen]

Modifying Section Dimensions and Generation of Section Properties

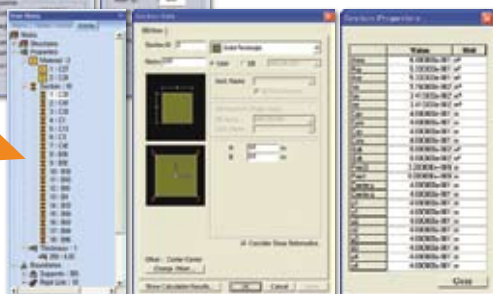


Sectional dimensions of a Beam/Column/Wall can be modified.

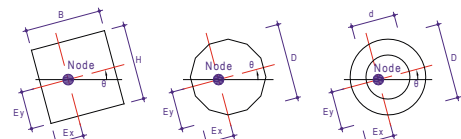
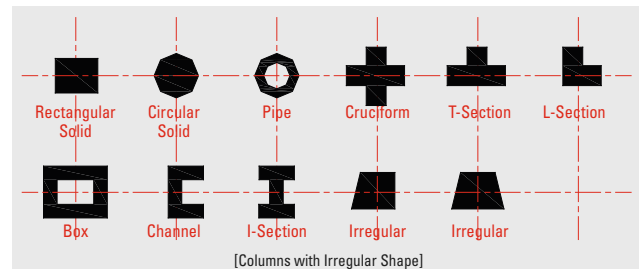
Export



Quick generation of Material/Section properties in midas Gen.



Advanced Recognition of Various Column Sections & Section Eccentricities

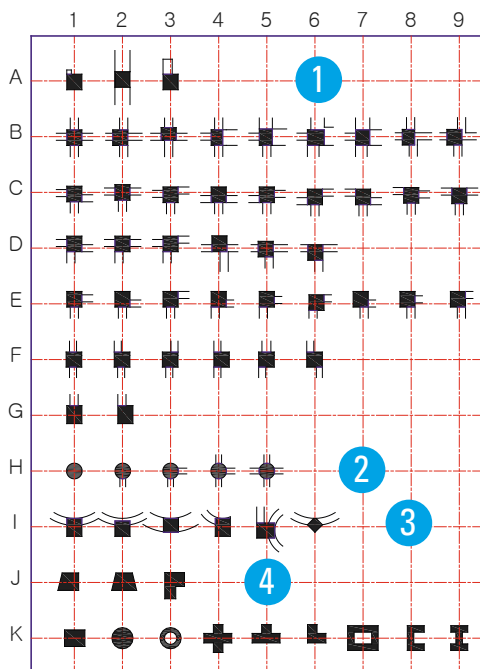


[Recognize the eccentricity of a column from a node & Auto-calculate the Beta Angle]

Features

- Intuitive and Easy-to-Use GUI
- Advanced Recognition of Various Intersections, Configurations, Column Sections & Eccentricities
- Modeling Openings in Walls
- Modifying Section Dimensions and Generation of Section Properties
- Deletion of Redundant Members
- Recognition of Curved Members
- Automatic Calculation of Masonry Load
- Instructional Guide for Correcting Modeling Errors
- Generation of Story Data
- 3D Model Views
- Similar Functions with AutoCAD

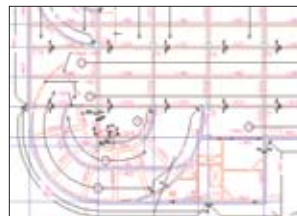
Advanced Recognition of Various Intersections and Configurations



- 1 All connection types for Rectangular Columns + Beams/Walls
- 2 All connection types for Circular Columns + Beams/Walls
- 3 All connection types for Rectangular Columns + Curved Members
- 4 Columns with Irregular Shapes

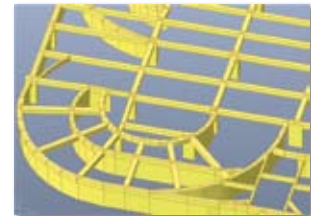
Recognition of Curved Members

midas Modeler recognizes architectural curvatures and effectively creates curved members automatically.



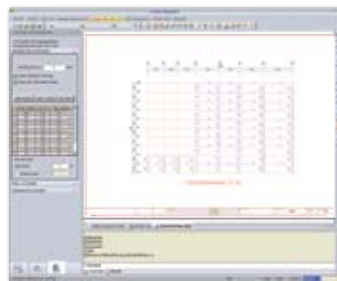
[2D CAD Data]

Auto Generation



[Automatic Generation of Curved Members]

Generation of Story Data

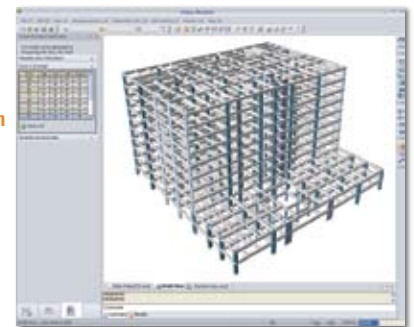


[Automatic generation of story data based on elevation]

Auto Generation



[User defined story data]

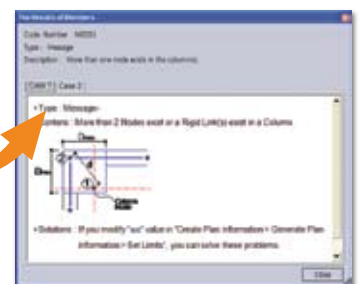
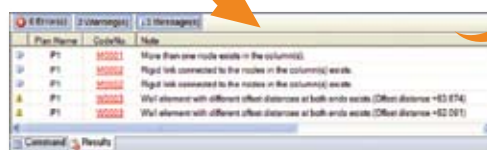


[Automatic Generation of Stories]

Instructional Guide for Correcting Modeling Errors



Automatic zoom of the error in the model window when double-clicking on the error message.



Instructional dialog box appears when clicking on the error code.

Automatic Generation of 3D Structural Analysis Model

3 steps of Working Panel

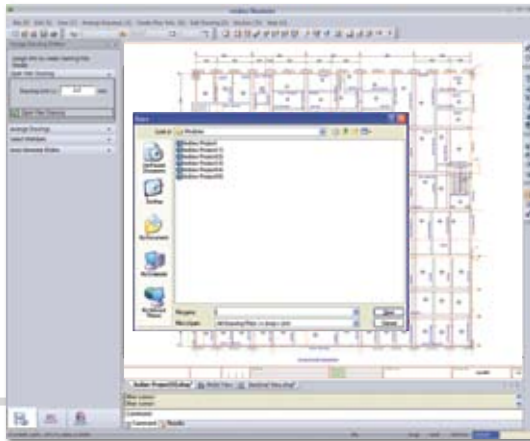


Step 1: Select the elements in the drawing

STEP 01

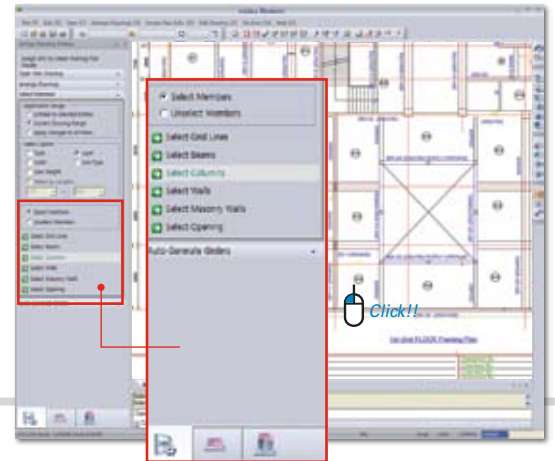
1

Open the Framing plan



2

Select members



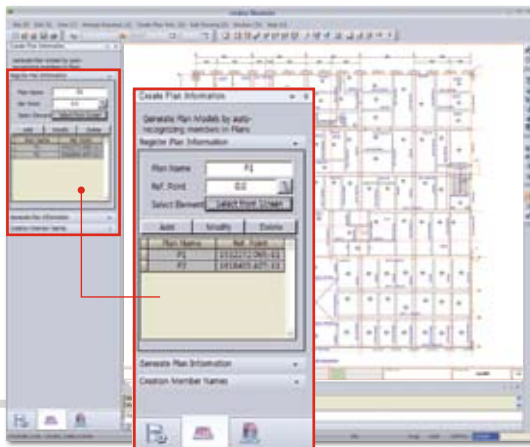
Click!!

Step 2: Generation of plan information

STEP 02

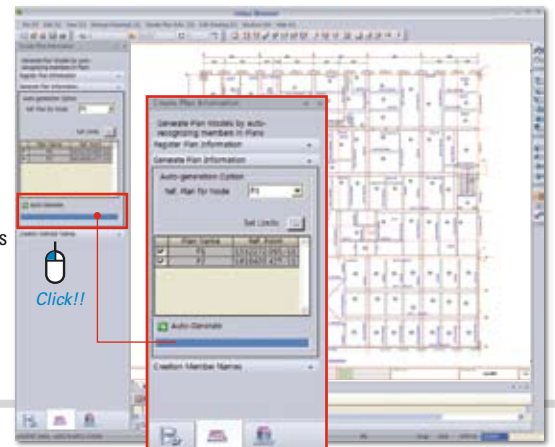
3

Register the plan information



4

Generate members for each plan by using the plan information and the names for the members



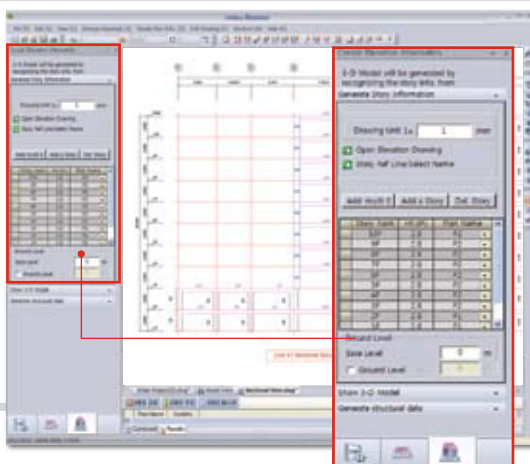
Click!!

Step 3: Generation of sectional information

STEP 03

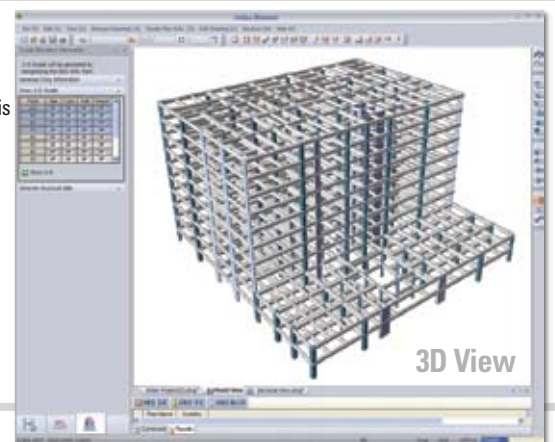
5

Enter the section information



6

Completion of a 3D analysis model



3D View