

MatrixFrame, developed by Matrix Software - Netherlands, is professional software for structural engineering. Various analysis methods can be used, such as linear elastic analyses, tension- and compression only elements, cable elements and geometric and physical non-linear effect of steel and concrete. Several extensions for steel and concrete code checking according Eurocode are available.

MatrixFrame enables you to work in a graphical way, a numerical way, or in a combination of both. The user interface always offers you the most convenient way of working. The software is very powerful making modifications and for interactive design. MatrixFrame is easy to learn and easy to use. Suitable for simple and for complex structures as well.

General Characteristics

The basic assumption of MatrixFrame is the link to standards according to modern Windows software. The user interface is a well ordered classification in chapters and instructions, which makes it very easy to learn and use, even for the occasional user.

- A consistent workflow through the whole program.
- Self-defined and removable toolbars make the program more convenient.
- All buttons are provided with tooltips.
- Shortcuts, checked visually and activated before the output takes place, make it possible to increase the input and to prevent mistakes.
- A simultaneously numerical and graphical input because of the multi window user interface.
- Intellimouse support.
- Because of the use of tabs a fast exchange of data in diagrams is possible. The graphical presentation changes automatically.
- You can combine pictures and text in your reports. A great number of selections are available.
- With self-defined standard reports a perfect output can be made very quickly.

Online Help

The Help-function is the primary information source of MatrixFrame. In the Help section you will find a table of contents and a keyword register in order to find the right information very quickly.

Manual

This book contains a description of the installation and an introduction of how to use MatrixFrame. When you are going to work with MatrixFrame for the first time, you have several examples for training. You will learn how to use MatrixFrame very quickly.

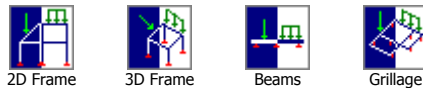
System requirements

Your computer must comply with the following specifications:

- Windows 2000/XP
- PC with Pentium processor
- 512 Mb memory
- 100 Mb hard disc free space
- Monitor with XGA resolution
- CD-ROM player
- LPT or USB port for dongle

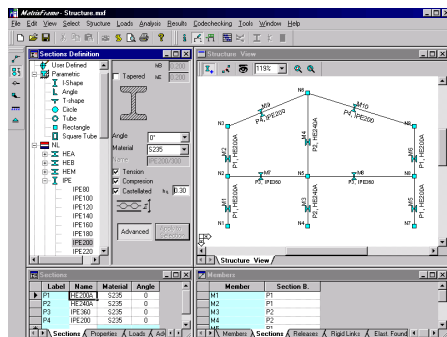
MatrixFrame main modules

MatrixFrame is divided in several modules. The basic modules are for structural analysis of 2D Frames, 3D Frames, beams and grillages.



Geometry:

- Graphical and table input of the geometry, loads, load cases and load combinations
- Construction line function, free sketching of nodal- and member input
- Parametric sections for I, T, L, circle, tube, rectangular and RHS
- Section library with standard sections, tubes, square tubes and steel sections
- Castellated beams and tapered sections
- Rigid links
- Releases with linear springs
- Supports with linear springs or rotated supports



section properties

Loads and load combinations:

- Loads according to the local-, global or projected co-ordinate system
- Uniform distributed-, trapezoidal-, triangle- and concentrated loads on members and/or nodes. Concentrated and nodal loads at an angle. Equal and unequal temperature loads, imposed deformations and self weight
- Load cases, combined into ULS and SLS load combinations or persistent, accidental, frequent and quasi-permanent load combinations (Eurocode)

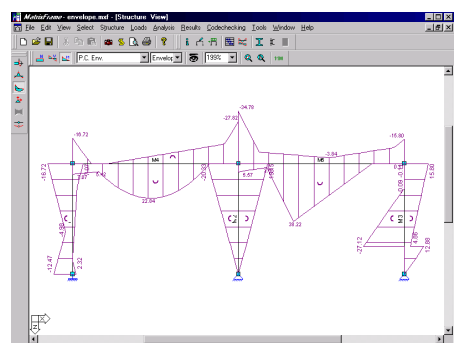
Analysis options:

- linear static analysis (standard)
- Shear force correction
- Compression/tension only element
- Tension only elements with F-Euler

- Cable elements
- Tension elimination elastic foundation
- Non linear releases (m-Phi diagram)
- Non linear supports (f-u diagram)
- Geometric non linear P-delta and N-force correction (GNL)
- Physical non linear (FNL) steel
- Physical non linear (FNL) concrete

Results:

- Nodal forces and displacements
- Member forces and displacements using numerical integration
- Envelope for bending moments, shear forces and normal forces
- Support reactions
- Soil pressure
- Nodal displacements
- Member deflections
- FNL section and capacity results

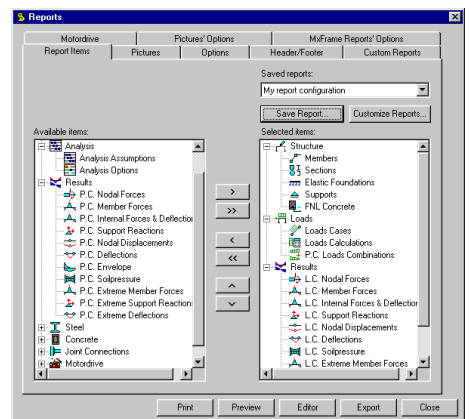


envelope bending moments

Report system

MatrixFrame has an advanced, flexible and user friendly report system:

- Easy to select report items
- Numerical and graphical results
- Motor drive for automatic generation of report pictures
- Store picture for manual picture selection
- Save and modify your own standard report configuration
- Free choice font type and size
- Export report to several formats: RTF, PDF, XML, XLS, etc.
- Create your own reports with Crystal Reports tool



Report system

