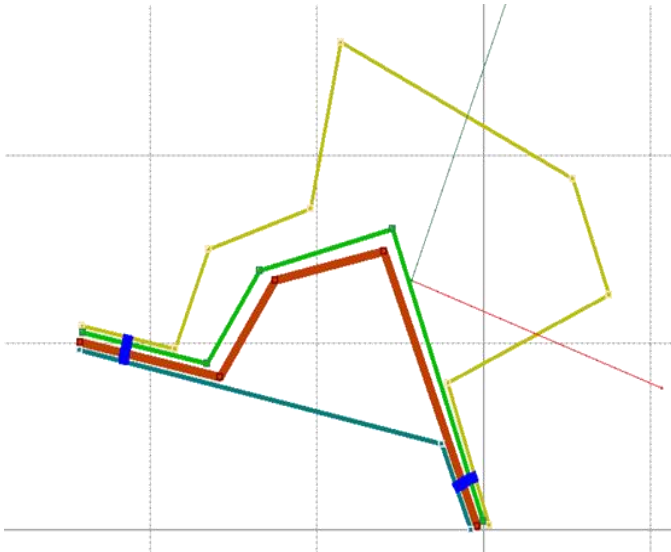




The fastest way in Pre Design



Cross Section Analyzer is a tool for automatic creation and calculation of various cross sectional design concepts

Cross sections are generated basing on user-defined design variables. The software enables the definition of material, thickness and length design variables.

One of the greatest advantages of the Cross Section Analyzer is the speed of calculations.

*Now it is possible to **calculate thousands of design variants in seconds !***

Search for the optimal solution with the usage of results filtering functionality. Set the range of acceptable results values and find the most suitable cross sectional designs.

CSA automatically creates and calculates cross sectional designs covering user defined specification

Select an element of a cross section

- Plate
- Segment

View properties of the selected element

Define design variables

- Thickness
- Material
- Length
- Move Point

The screenshot displays the Cross Section Analyzer software interface. The main window shows a cross-section design with a yellow rectangular shape. A table in the bottom-left corner lists combinations of design variables. The bottom-right corner shows a radar chart for stress analysis. The right side of the interface features a properties panel and a design variable editor.

Combination ID	Status	Thickness Design Variable (D_Segment/Part)	Thickness Design Variable (D_Segment/Part)	Thickness Design Variable (D_Segment/Part)
000	Created	0.3	0.5	0.5
001	Created	0.3	0.5	1
002	Created	0.3	0.5	1.5
003	Created	0.3	0.5	2
004	Created	0.3	0.5	2.5
005	Created	0.3	0.5	3
010	Created	0.3	1	0.5
011	Created	0.3	1	1.5
012	Created	0.3	1	1.5
013	Created	0.3	1	2
014	Created	0.3	1	2.5
015	Created	0.3	1	3
020	Created	0.3	1.5	0.5
021	Created	0.3	1.5	1
022	Created	0.3	1.5	1.5
023	Created	0.3	1.5	2
024	Created	0.3	1.5	2.5
025	Created	0.3	1.5	3
030	Created	0.3	2	0.5
031	Created	0.3	2	1
032	Created	0.3	2	1.5
033	Created	0.3	2	2
034	Created	0.3	2	2.5
035	Created	0.3	2	3
040	Created	0.3	2.5	0.5
041	Created	0.3	2.5	1
042	Created	0.3	2.5	1.5

View list of defined combinations

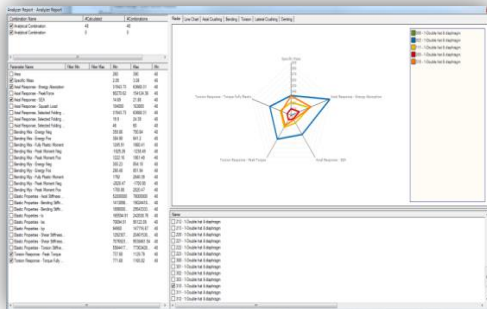
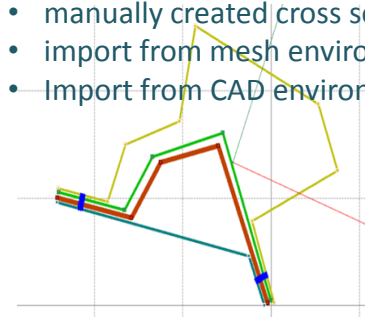
View & filter results
Search for a most suitable design

EXPORTED RESULTS & GEOMETRY

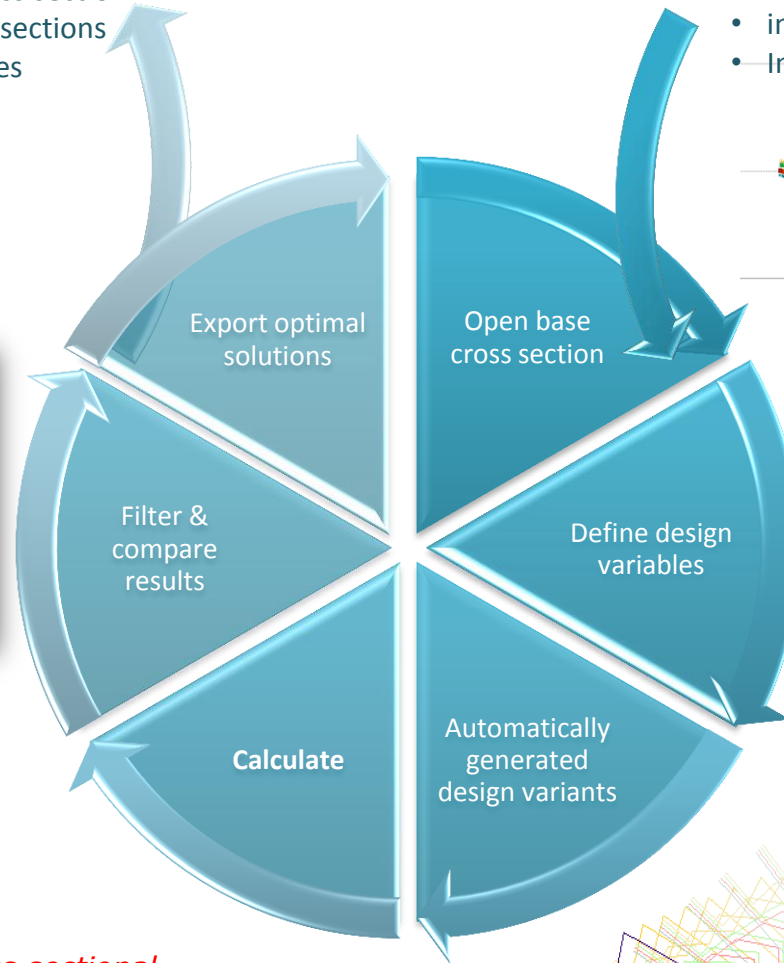
- Export text report for selected cross section
- Export geometry of optimal cross sections
- To be used for further design stages
- To be used in the process of Multi Disciplinary Optimization

SIMPLIFIED MACRO ELEMENT MODEL

- manually created cross section (CCC or VCS)
- import from mesh environment (CSC or VCS)
- Import from CAD environment (in development)



Compare and filter results to find optimal design concepts



- Material Design Variable
- Thickness Design Variable
- Length Design Variable
- Move Point Design Variable

Calculate 100 cross sectional design variants in 5 seconds !!!

