MC Sec

Include << C:\ProgramData\MC Sec\MC Sec.mcdx

TEST - Search functions

Search for a section with a name containing a specified string and with "Field" values greater or equal to the specified Values
Output is sorted according to the "Sorting" property.

Section Name contains $N := \text{"HE"}$
Search for:

Second moment of area $F1 := \text{"Iy"}$ $V1 := 2500 \; \boldsymbol{cm}^4$

Second moment of area $F2 := \text{"Avz"}$ $V2 := 300 \; \boldsymbol{cm}^2$

Sort results over weight $S := \text{"G"}$

$$\text{search\_name\_2\_sec}\left(N, F1, \frac{V1}{1 \; \boldsymbol{cm}^4}, F2, \frac{V2}{1 \; \boldsymbol{cm}^2}, S\right) = \text{"HE900X466;HE1000X494;HE1000X584;"}$$

To get an array with sections

$$Res := Search_{with}Name_{sec}2\left(N, F1, V1, F2, V2, S\right) = \begin{bmatrix} \text{"HE900X466"} \\ \text{"HE1000X494"} \\ \text{"HE1000X584"} \end{bmatrix}$$

To get a matrix with sections and properties

$$SearchTable_{with}Name_{sec}2\left(N, F1, V1, F2, V2, S\right) = \begin{bmatrix} \text{"HE"} & \text{"Iy"} & \text{"Avz"} & \text{"G"} \\ \text{"Names"} & \text{"cm\textasciicircum 4"} & \text{"cm\textasciicircum 2"} & \text{"kg/m"} \\ \text{"HE900X466"} & 814900 & 305.3 & 466 \\ \text{"HE1000X494"} & 1028000 & 344.5 & 494 \\ \text{"HE1000X584"} & 1246100 & 403.2 & 584 \end{bmatrix}$$

Disclaimer:
There is no affiliation between AISC (American Institute of Steel Construction) and this software. The information contained in this software includes values from publicly available from AISC but there is no connection between AISC and this software. No responsibility can be implied from the use of the term AISC in this software.