Controlli sulle funzioni di TCoMX

Creo una MATRICE (ricognizione) di riferimento.

$$S = \begin{bmatrix} 0 & 2 & 6 & 0 & 1 & 2 & 0 & 0 & 2 & 4 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 6 & 4 & 5 & 2 & 0 & 3 & 2 & 1 & 3 & 0 & 0 \\ 0 & 1 & 1 & 2 & 4 & 0 & 0 & 3 & 0 & 2 & 3 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix} / 10$$

1) MFcalc:

Cosa mi aspetto?

$MF(:,1) = \frac{0}{0} = NaN$ ok

$MF(:,2) = \frac{2}{1.5} = 1.\bar{3}$ ok

$MF(:,3) = \frac{6}{11/3} = \frac{6 \cdot 3}{11} = \frac{18}{11} = 1.\overline{63}$ ok

$MF(:,4) = \frac{5}{3.5} = 1.42857\ldots$ ok

$MF(:,5) = \frac{4}{7/3} = \frac{12}{7} = 1.714285\ldots$ ok

$MF(:,6) = \frac{2}{2} = 1$ ok

$MF(:,7) = \frac{3}{3} = 1$ ok

$MF(:,8) = \frac{3}{5/2} = \frac{6}{5} = 1.2$ ok

$MF(:,9) = \frac{2}{3/2} = \frac{4}{3} = 1.\overline{3}$ ok

$MF(:,10) = \frac{4}{9/3} = \frac{4}{3} = 1.\overline{3}$ ok

$MF(:,11) = \frac{3}{3} = 1$ ok

$MF(:,12) = \frac{0}{0} = NaN$ ok

Che MF plan ci aspetto? Media dei valori $\neq NaN$:

$$MF_{plan} = \frac{1+1.\overline{3} + 1.\overline{3} + 1.2 + 1 + 1 + 1.7143 + 1.4286 + 1.6\overline{3} + 1.\overline{3}}{10} =$$

$= 1.2979$ ok

$std_{plan} = 0,2549$ $\left(\sqrt{\frac{\sum(x_i - \bar{x})^2}{N-1}}\right)$ ok

$\Rightarrow$ MF works correctly! :)

2) LoTstats:

$$openlaws = \begin{bmatrix} 2 & 3 & 5 & 6 & 9 & 10 \\ 3 & 4 & 5 & 7 & 8 & 9 & 10 \\ 2 & 3 & 4 & 5 & 8 & 10 & 11 \end{bmatrix} \begin{matrix} cp=1 \\ cp=2 \\ cp=3 \\ cp=4 \\ cp=5 \end{matrix}$$

ok

$$meanLOT = \left(\frac{2+6+1+2+2+6+4+5+2+3+2+1+3+1+1+2+4+3+2+3}{(20 \times 10)} \right) \times 1000 =$$

$= 265\,ms$ ok

$stdLOT = 138.696943\,ms$ ok

$$LOT100 = \begin{bmatrix} 0 \\ NaN \\ 0 \\ 0 \\ NaN \end{bmatrix} \quad LOT30 = \begin{bmatrix} 0 \\ NaN \\ 0 \\ 0 \\ NaN \end{bmatrix} \quad LOT50 = \begin{bmatrix} 0 \\ NaN \\ 0 \\ 0 \\ NaN \end{bmatrix}$$

$$LOTp+20 = \begin{bmatrix} 0 \\ 0 \\ 0 \\ 0 \end{bmatrix}$$ ok

meanLOT100 = 0 stdLOT100 = 0

30 = 0 30 = 0

50 = 0 50 = 0

pt20 = 0 pt20 = 0

ok

=> LOTstats works CORRECTLY :)

3) LOTVcalc:

$t_{max} = [0\ 2\ 6\ 5\ 4\ 2\ 3\ 3\ 2\ 4\ 3\ 0]$ ok

activeBones = [2 3 4 5 6 7 8 9 10 11] ok

LOTVleaf => CORRETTO IL DENOMINATORE (NCP-2 al posto di NCP-1) ok

$LoTV_{plan} = 0.4828$ ok

$LoTV_{std} = 0.1568$ ok

4) PSTVcalc

$$pSTV_{cp} = \begin{bmatrix} 4.1 \\ 2.0 \\ 3.8 \end{bmatrix}$$ ok

$pSTV_{plan} = 3.3$ ok

$pSTV_{std} = 1.135782$ ok

⇒ PSTVcalc works correctly! ✋

5) LNS calc:

$$openleaves = \begin{bmatrix} 6 \\ 0 \\ 7 \\ 7 \\ 0 \end{bmatrix}$$ ok

$$LONS_{cp} = \begin{bmatrix} 0 \\ NaN \\ 0 \\ 14.28571 \end{bmatrix}$$ ok

$$L1NS_{cp} = \begin{bmatrix} 100 \\ NaN \\ 57.14286 \\ 57.14286 \end{bmatrix}$$ ok

$LONS_{plan} = 4.761905$ ok

$LONS_{std} = 8.247861$ ok

$L1NS_{plan} = 71.42857$ ok

$L1NS_{std} = 24.74358$ ok

⇒ LNScalc works correctly! ✋

6) CLS calc:

$$CLS_{cp} = \begin{bmatrix} 50 \\ 100 \\ 41.667 \\ 41.667 \end{bmatrix}$$ ok

$CLS_{plan} = 58.\overline{3}$ ok

$CLS_{std} = 28.05418$ ok

$$CLS_{incp} = \begin{bmatrix} 25 \\ 0 \\ 8.\overline{3} \\ 25 \end{bmatrix}$$ ok

$CLS_{inplan} = 14.58\overline{3}$ ok

$CLS_{instd} = 12.5$ ok

=> CLS calc works CORRECTLY! :)

7) MI calc: TODO

8) TTDF calc: TODO