

How to write custom functions for tVar Calculating the angle between two vectors

$$\vec{a} = \begin{pmatrix} 3,000 \\ 0,000 \\ 0,000 \end{pmatrix} \quad (1)$$

$$\vec{b} = \begin{pmatrix} 4,000 \\ 4,000 \\ 0,000 \end{pmatrix} \quad (2)$$

$$\vec{a}_n = \frac{\vec{a}}{\sqrt{\vec{a} \cdot \vec{a}}} = \begin{pmatrix} 1,000 \\ 0,000 \\ 0,000 \end{pmatrix} \quad (3)$$

$$\vec{b}_n = \frac{\vec{b}}{\sqrt{\vec{b} \cdot \vec{b}}} = \begin{pmatrix} 0,707 \\ 0,707 \\ 0,000 \end{pmatrix} \quad (4)$$

$$\alpha = \deg(\text{acos}(\vec{a}_n \cdot \vec{b}_n)) = 45,000 \quad (5)$$

Calculating the angle between two vectors with custom functions

$$\vec{a}_n = |\vec{a}| = \begin{pmatrix} 1,000 \\ 0,000 \\ 0,000 \end{pmatrix} \quad (6)$$

$$\vec{b}_n = |\vec{b}| = \begin{pmatrix} 0,707 \\ 0,707 \\ 0,000 \end{pmatrix} \quad (7)$$

$$\alpha = \deg(\text{acos}(\vec{a}_n \cdot \vec{b}_n)) = 45,000 \quad (8)$$