

convert x,y,z component to
inclination, declination and total field

x

DBL

y

DBL

z

DBL

x $F = \sqrt{x^2 + y^2 + z^2};$

y $\text{Inc} = \arcsin(z / F);$

z $\text{Dec} = \arctan(y / x);$

$\text{Inc} = \text{Inc} / \pi * 180;$

$\text{Dec} = \text{Dec} / \pi * 180;$

if(x < 0)

{

Dec = Dec + 180;

}

else

{

if(y < 0)

{

Dec = Dec + 360;

}

}

}

Inc

Dec

F

Inc

DBL

Dec

DBL

F

DBL