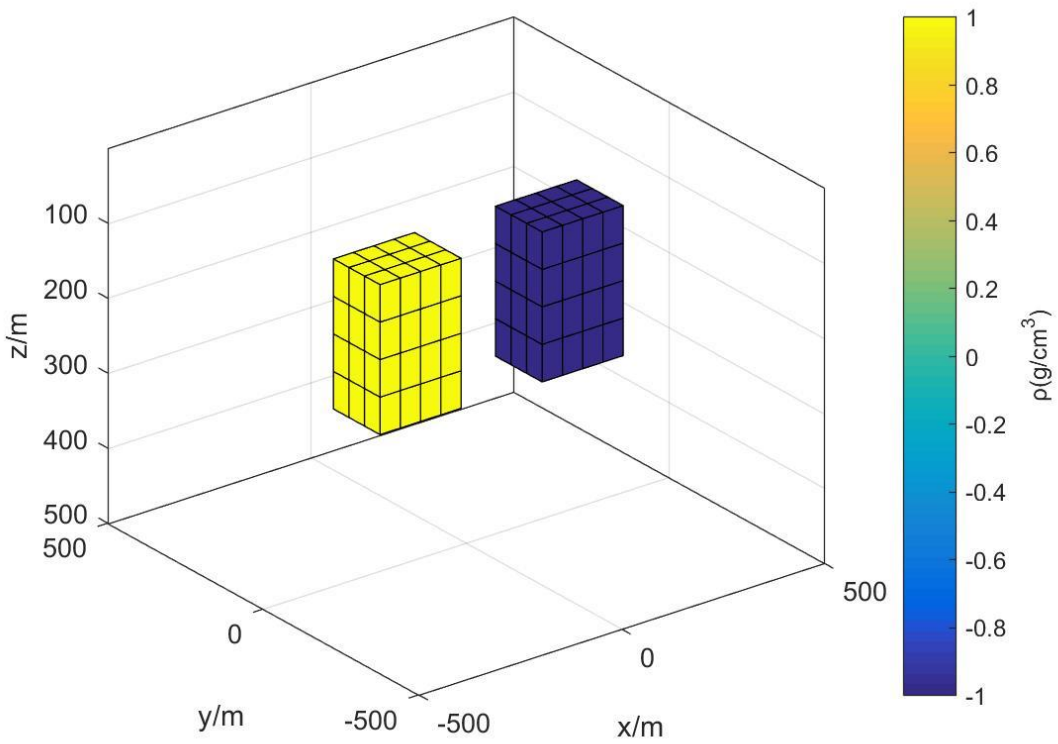
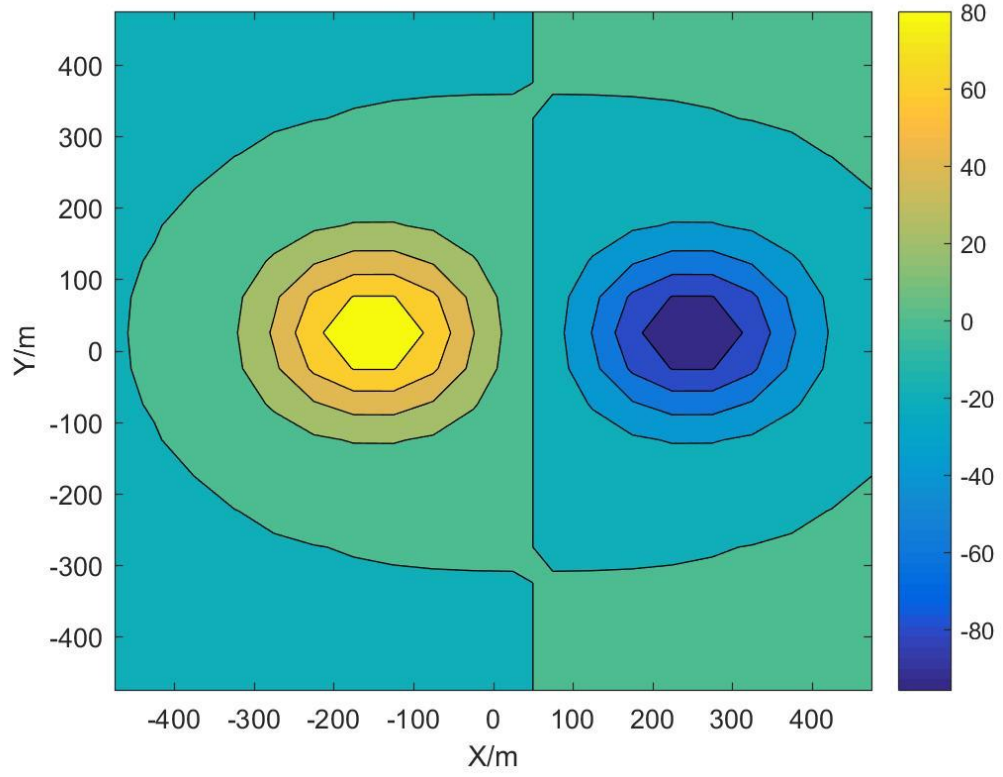
Synthetic model



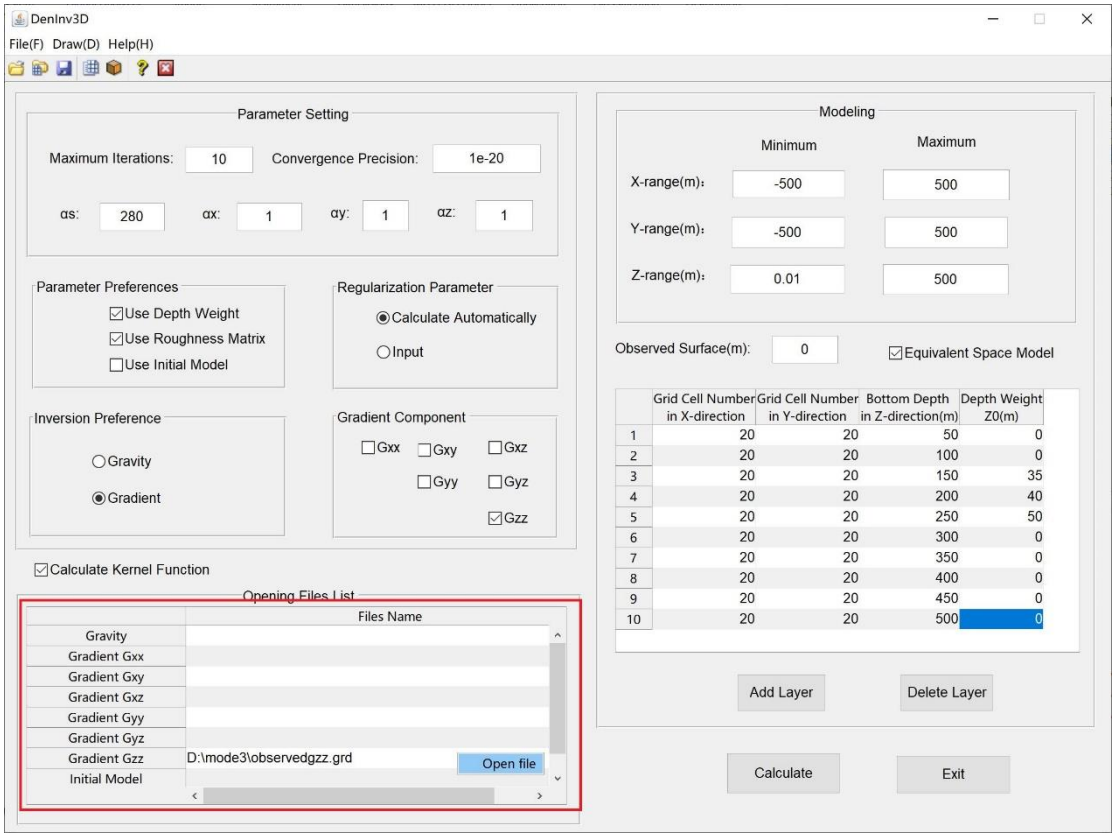
Observed Gzz: observedgzz.grd



Step1:

Parameter setting and open file:

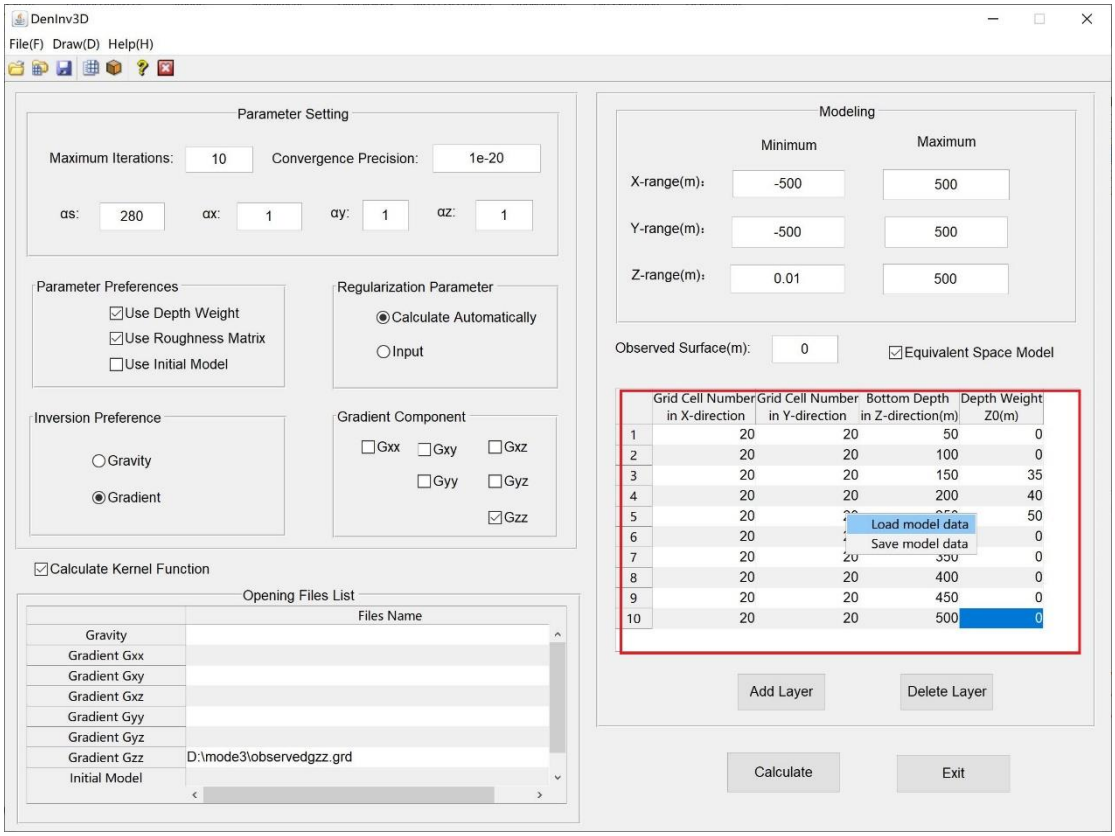
Click right-button of mouse inside the red line to open the observed gzz file:observedgzz.grd



Step2:

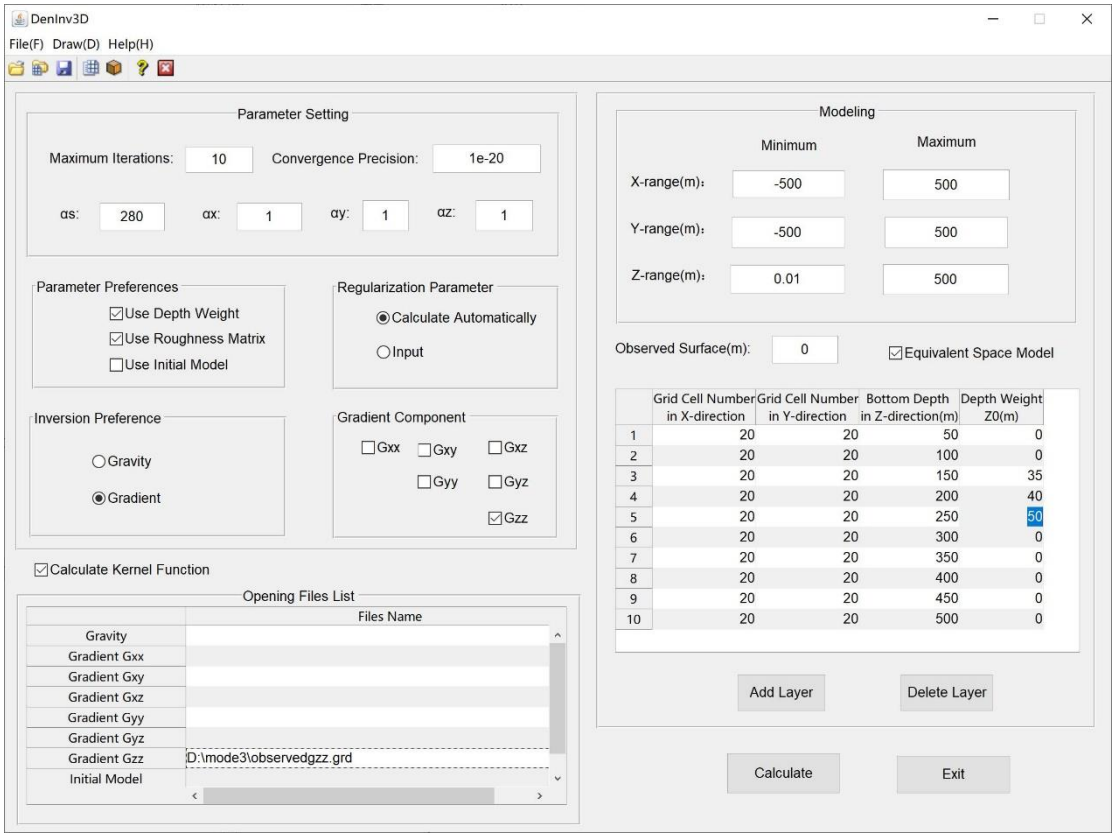
Input the modeling parameters or load model data from file, click right-button of mouse to open a model file in the red line area.

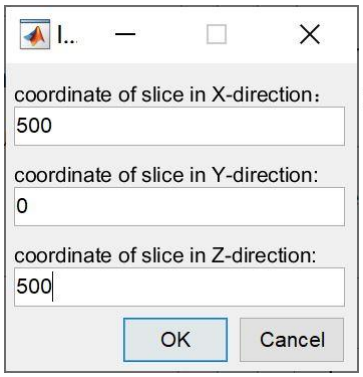
Load model data:model.txt

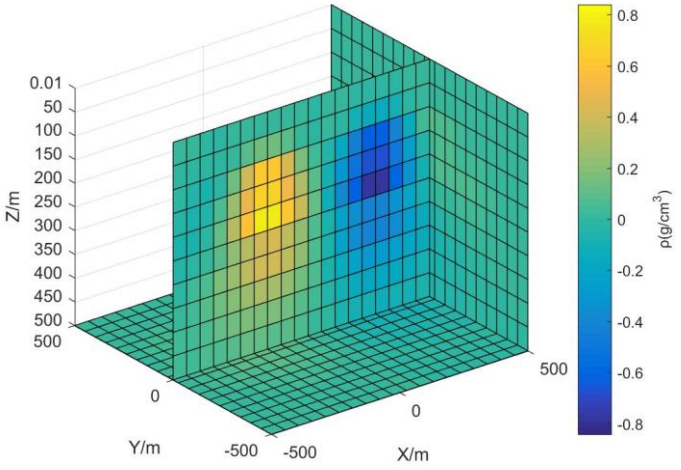


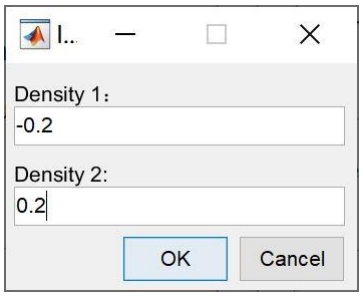
Step 3:

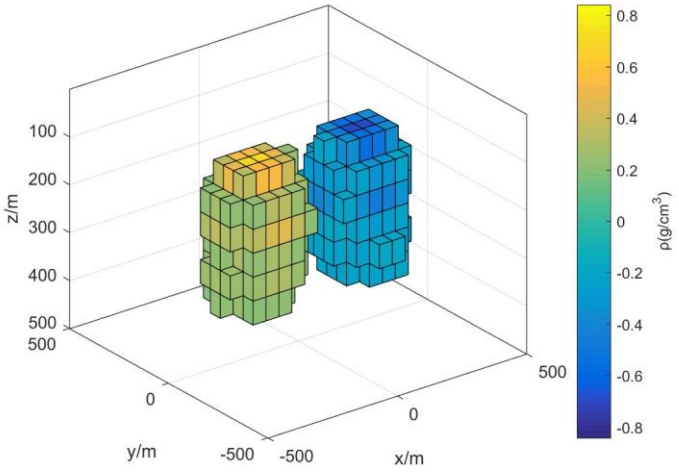
Click the button “calculate” to run











If Density 1 < Density 2, rho < Density 1 or rho > Density 2 will be shown.

If Density 1 > Density 2, then the rho between Density1 and Density 2 will be shown.

observedgzz.grd: the observed data, the Golden Software Surfer GRD ascii format.

model.txt: the modeling file.

Inversiondensity.dat: inversion result.
4 columns: x,y,z,rho

Inirho_inputfile.dat: the initial density for inversion
Inirho_originalfile.dat: to show the data order of inirho_inputfile.dat.

How to input the modeling data?
According to the observedgzz.grd, we have:
Xmin=-475 m,Xmax=475 m,Nx=20,dx=(Xmax-Xmin)/(Nx-1)=50 m
Ymin=-475 m,Ymax=475 m,Ny=20,dy=(Ymax-Ymin)/(Ny-1)=50 m

Model:
Xminm=Xmin-dx/2=-475-50/2=-500
Xmaxm=Xmax+dx/2=475+50/2=500
Yminm=Ymin-dy/2=-475-50/2=-500
Ymaxm=Ymax+dy/2=475+50/2=500
Nxm=20,Nym=20
dxm=(Xmaxm-Xminm)/Nxm=50
dym=(Ymaxm-Yminm)/Nym=50

For the first observed point: (x,y)=(-475,-475)
The center of the first prism model: (xm,ym)=(-475,-475)
It means that the center of prism model corresponding to the observed point.
The coordinate of the inversion density is the center of the prism model.