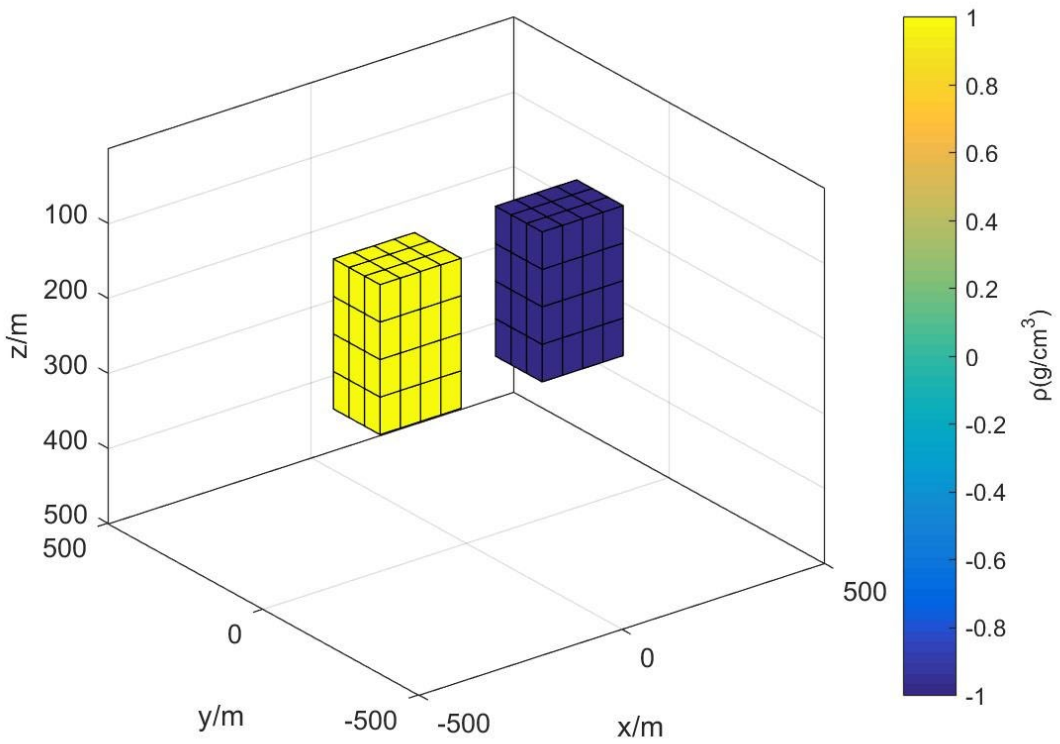
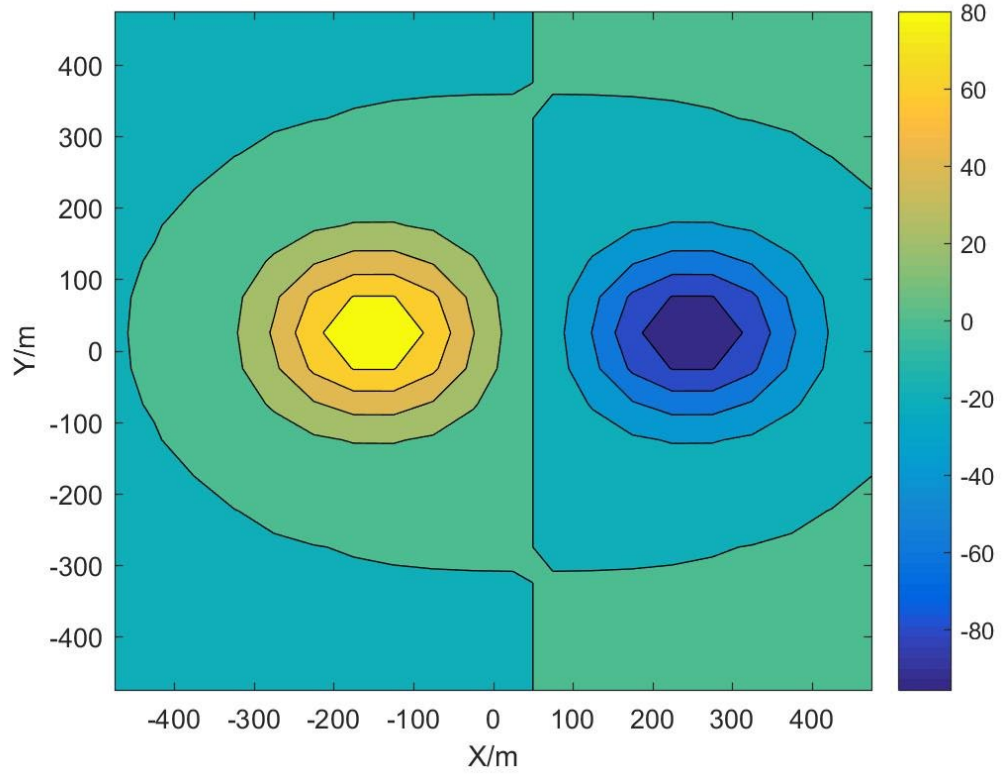
Synthetic model



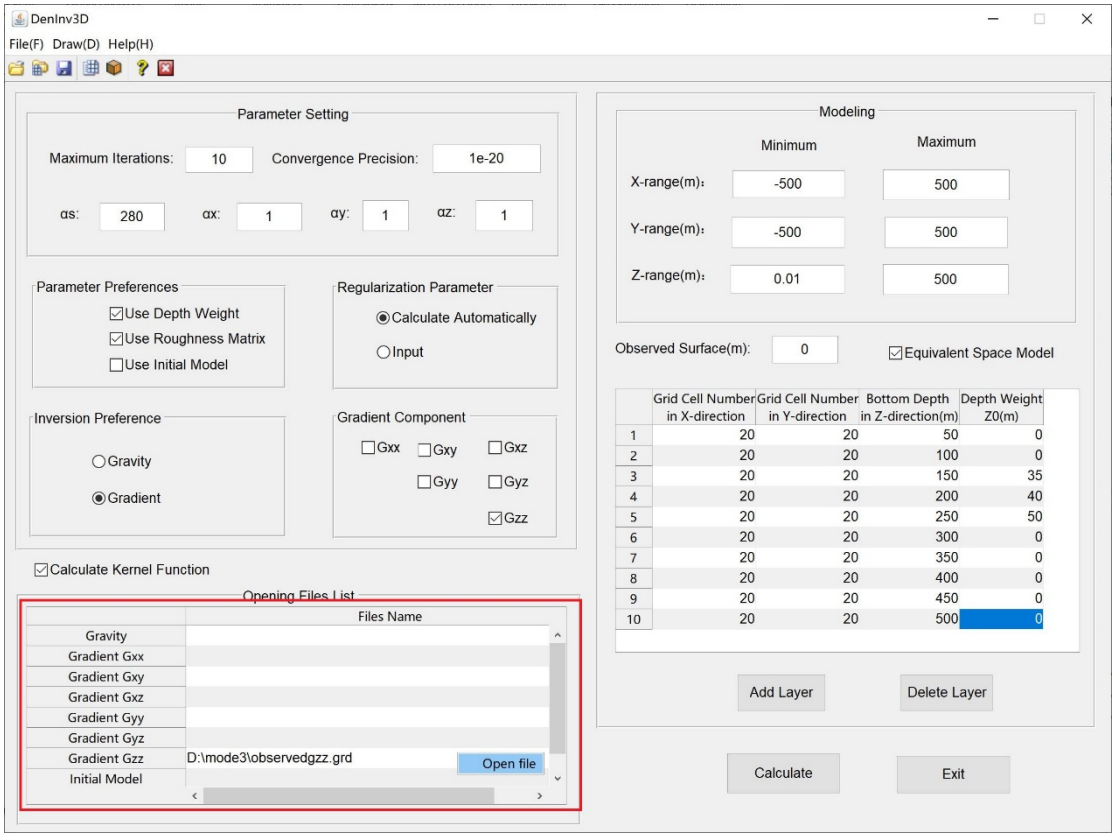
Observed Gzz: observedgzz.grd



Step1:

Parameter setting and open file:

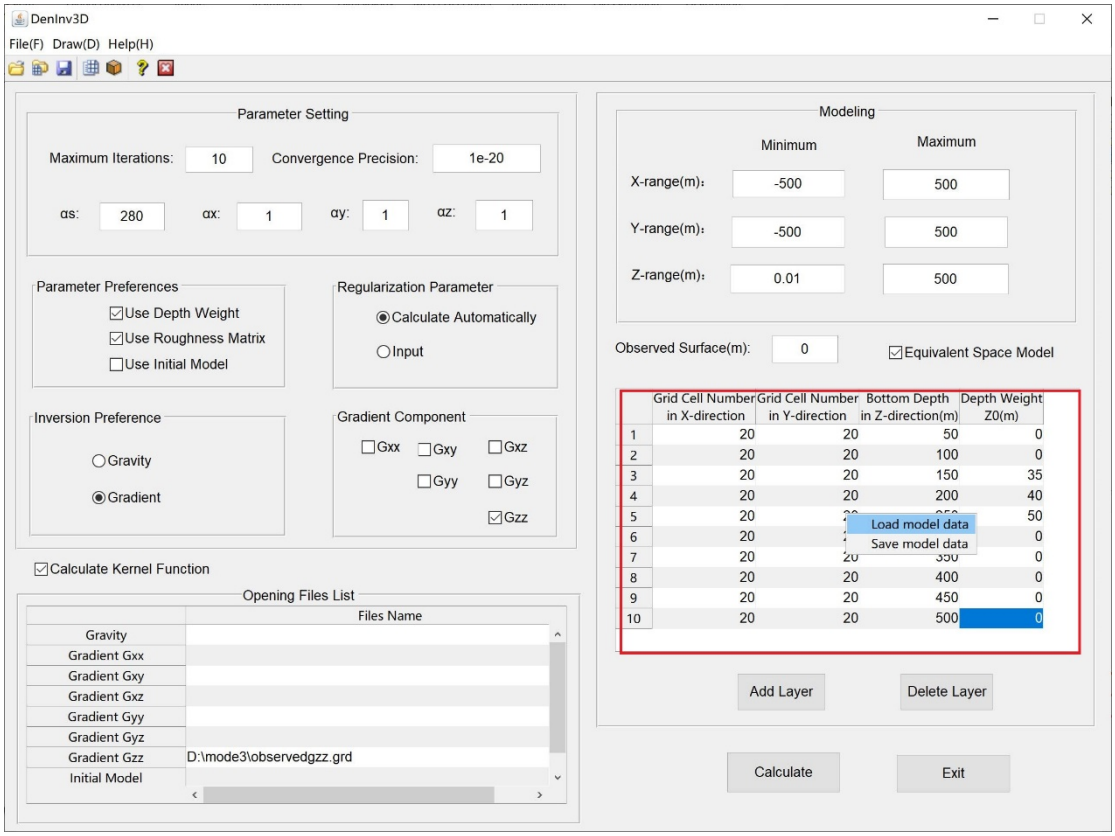
Click right-button of mouse inside the red line to open the observed gzz file:observedgzz.grd



Step2:

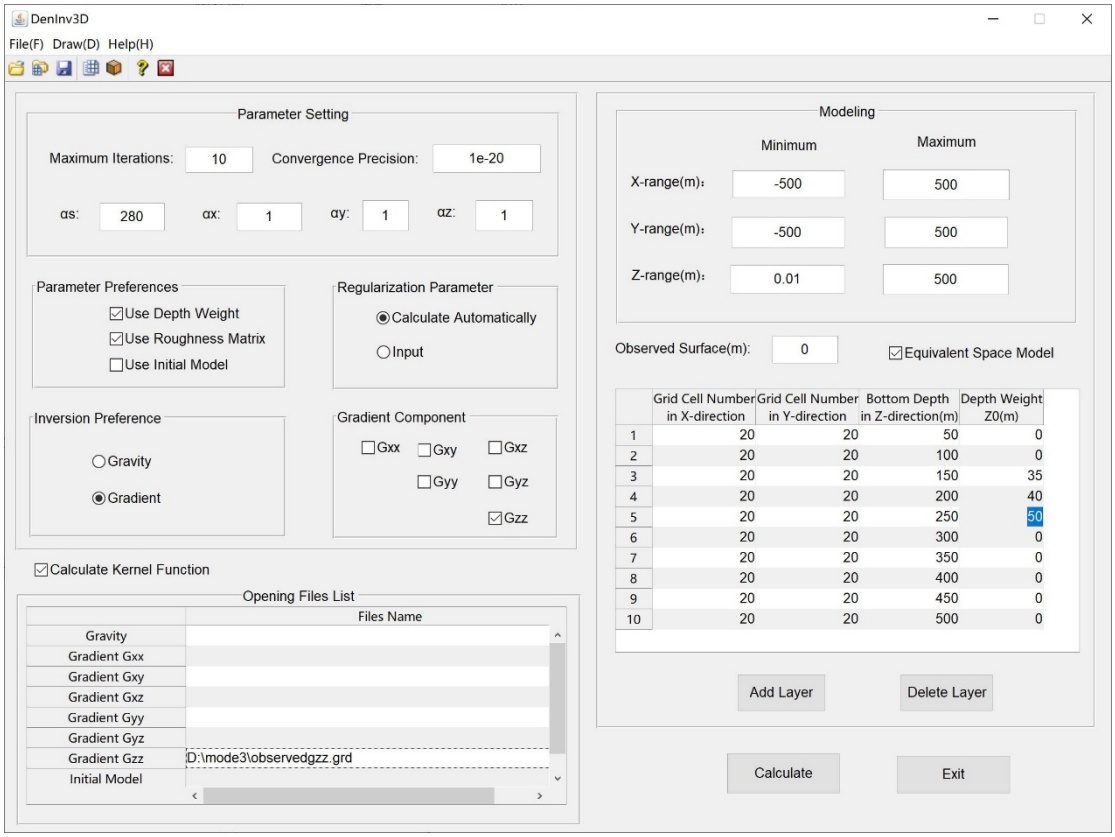
Input the modeling parameters or load model data from file, click right-button of mouse to open a model file in the red line area.

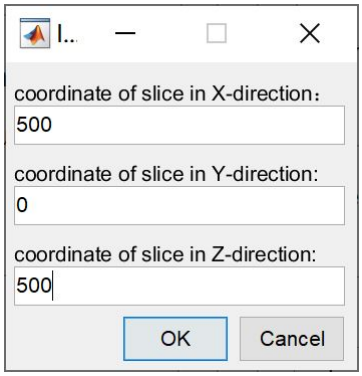
Load model data:model.txt

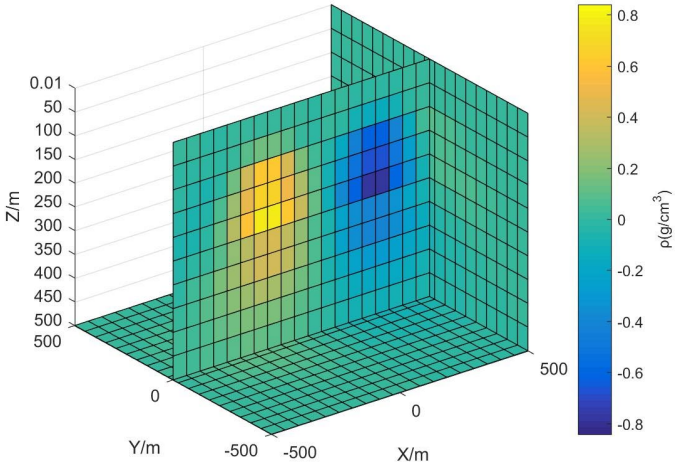


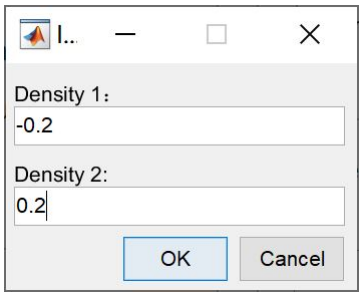
Step 3:

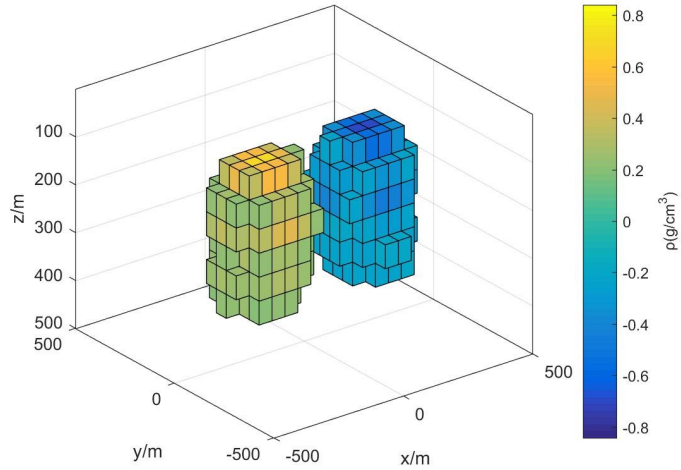
Click the button “calculate” to run




coordinate of slice in X-direction：
500
coordinate of slice in Y-direction:
0
coordinate of slice in Z-direction:
500
OK
Cancel


Z/m
0.01
50
100
150
200
250
300
350
400
450
500
500
0
Y/m
-500
-500
0
X/m
500
0.8
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
-0.8
ρ(g/cm3)


Density 1：
-0.2
Density 2:
0.2
OK
Cancel


z/m
100
200
300
400
500
500
0
y/m
-500
-500
0
x/m
500
0.8
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
-0.8
ρ(g/cm3)

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.