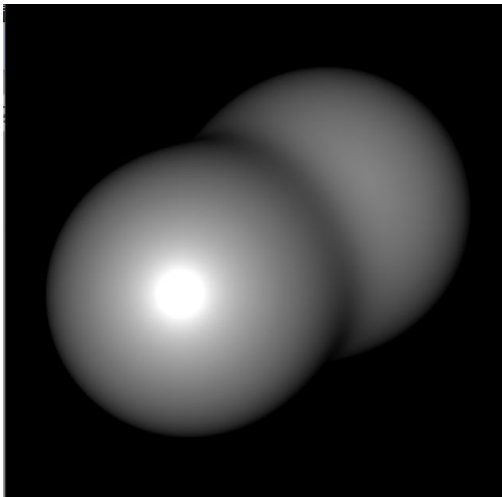


Tutorial: Steps to create metaballs in BRL CAD

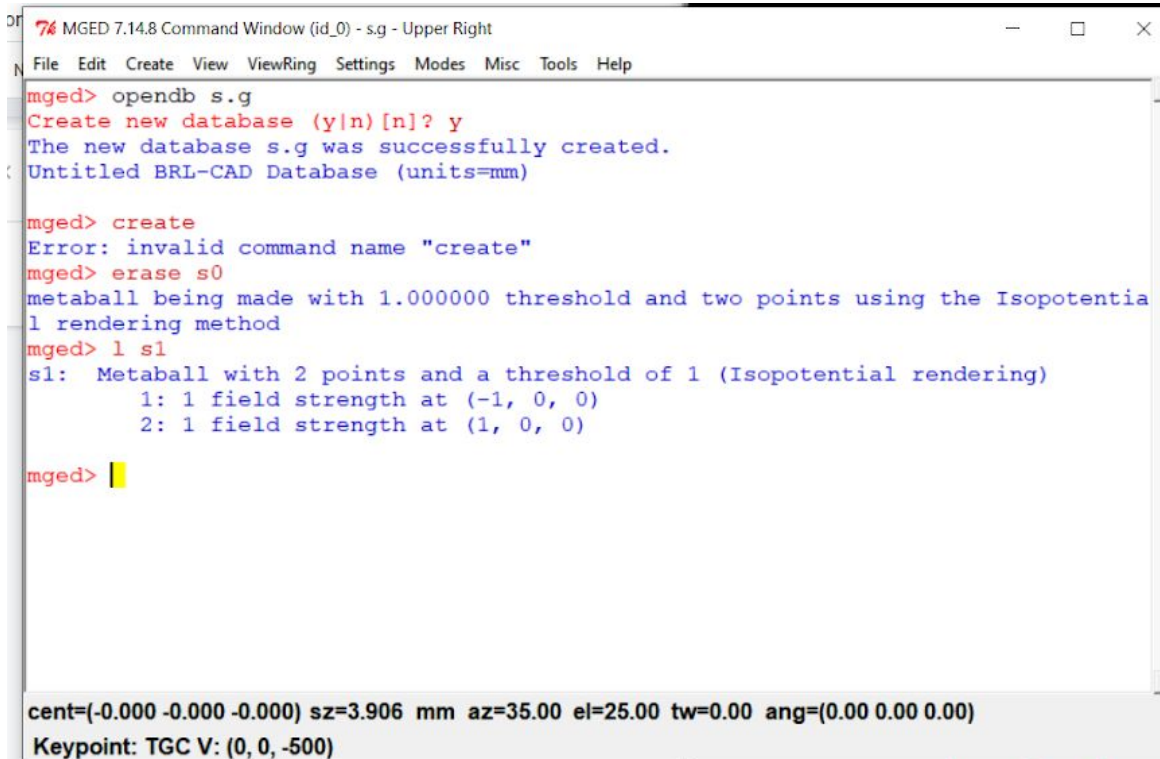
1. BRL CAD contains two apps: MGED and Archer. First open up MGED.
Once you open the app up, three windows will pop up.
2. Next you need to create a new database for your project.
In the window titled Command window, go to ***File > New*** and pick a name.
(Remember: to put .g at the end of the name)
3. Open up the file by doing ***File > open***.
4. In the graphics window, go to create in the toolbar above the workspace
5. Find metaball and add it.
6. (if it looks small just keep right clicking until it's in view)
7. (not required) If you want to ray trace it just type ***rt*** in the command window.
8. And... voila!!



Steps to inspect the metaballs

1. Go to the command window

2. Type *l* then the name of your metaball (in this case, s1) to get the location details of it.



```
MGED 7.14.8 Command Window (id_0) - s.g - Upper Right
File Edit Create View ViewRing Settings Modes Misc Tools Help
mged> opendb s.g
Create new database (y|n)[n]? y
The new database s.g was successfully created.
Untitled BRL-CAD Database (units=mm)
mged> create
Error: invalid command name "create"
mged> erase s0
metaball being made with 1.000000 threshold and two points using the Isopotential rendering method
mged> l s1
s1: Metaball with 2 points and a threshold of 1 (Isopotential rendering)
    1: 1 field strength at (-1, 0, 0)
    2: 1 field strength at (1, 0, 0)
mged> |
cent=(-0.000 -0.000 -0.000) sz=3.906 mm az=35.00 el=25.00 tw=0.00 ang=(0.00 0.00 0.00)
Keypoint: TGC V: (0, 0, -500)
```

3. Threshold, Field Strength, and the number of points are all the arguments of *sI*. I had used the default option for the rendering which is Isopotential rendering.