

Testing

Our efforts in testing our software revolved mostly around using sample manifest.txt files to better understand how we wanted the functionality to behave vs how it actually behaved. Below are sample images of the results of various tests which showcase output that will be used for grid display on the website to be used by Mr. Keogh's employees.

Example 1 shows the result of reading in a sample manifest file to our program during a balance operation. "Loc" here represents the coordinates of each cell on the ship. If one exists in a cell, each container's name and weight is also displayed alongside its coordinates.

Example 1

```
loc 1,1  
['NAN', '00000']  
loc 1,2  
['Cat', '00096']  
loc 1,3  
['Dog', '00008']  
loc 1,4  
['Pig', '00004']  
loc 1,5  
['Hen', '00004']  
loc 1,6  
['Rat', '00001']  
loc 1,7  
['UNUSED', '00000']  
loc 1,8  
['UNUSED', '00000']  
loc 1,9  
['UNUSED', '00000']  
loc 1,10  
['UNUSED', '00000']  
loc 1,11  
['UNUSED', '00000']  
loc 1,12  
['NAN', '00000']  
loc 2,1  
['UNUSED', '00000']  
loc 2,2  
['UNUSED', '00000']  
loc 2,3  
['UNUSED', '00000']  
loc 2,4  
['UNUSED', '00000']  
loc 2,5  
['UNUSED', '00000']  
loc 2,6  
['UNUSED', '00000']  
loc 2,7  
['UNUSED', '00000']  
loc 2,8  
['UNUSED', '00000']  
loc 2,9  
['UNUSED', '00000']  
loc 2,10  
['UNUSED', '00000']  
loc 2,11  
['UNUSED', '00000']  
loc 2,12  
> TERMINAL
```

Example 2

In this image we display the results of successfully balancing a ship. The start and end coordinates are shown for each container that needs to be moved. This image is not representative of the final implementation of this system as we used these results as a foundation to later list every movement required, not just start to end.

