SEAPORT PROGRAM

USER MANUAL

Version 1

04/01/2019

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INTRODUCTION

Welcome to the SeaPort Program. This program simulates some of the aspects of a number of Sea Ports and allows users to query the simulated Seaports information.

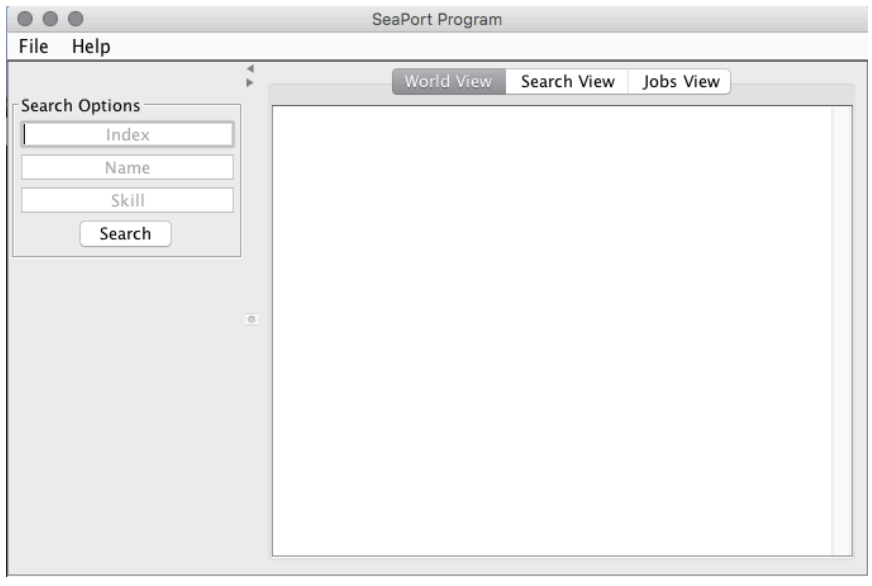
<More info will be added as project progresses>

GETTING STARTED

Upon running the program, The user is greeted by the Seaport Program Graphical User Interface(GUI). See *figure 1*.

NAVIGATING THE GUI

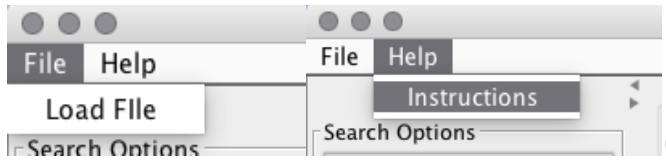
Looking at *figure 1*., users will notice three primary components of the GUI. The three areas are the MenuBar at the top of the window, The toolbar containing search features on the left side of the window, and a tabbed display area containing a world view, search view, and job view tabs.



(*figure 1*)

Menubar - The Menubar has two submenus, File(*Figure 2*) and Help(*figure 3*). By clicking on either submenus additional options will appear. The File menu provides and option to

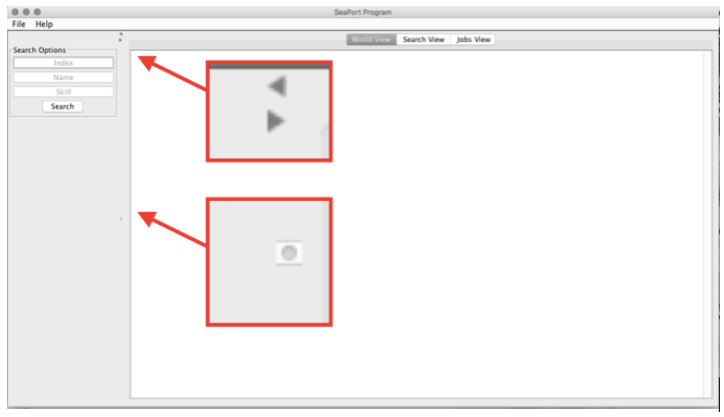
load a text file. Additionally, the Help menu provides an option to access this user guide at any time.



(left: *figure 2*, right: *figure 3*)

Toolbar - The toolbar currently provides three textfield the user can put in search parameters to. A button is also provided to perform a search with the inputed parameters.

The user can resize the toolbar area by clicking and dragging the area between the toolbar and display area, denoted by a circle icon in *figure 4*. The user can also maximize the toolbar by clicking the the right triangle in *figure 4*.


(figure 4)

Display Area - Resizing the Display area works the same as resizing the toolbar, but the left triangle maximizes the viewing area. As mentioned at the beginning of the section, the display area has three tabs the user can click on to change what is being viewed. The three viewing options are World view (displays all the seaport objects in the loaded seaport simulation), Search view (displays the results from a search inquiry), and Job view (not yet implemented).

Hopefully this section helped familiarize the user with the GUI; However, not much will happen without an appropriate text file loaded into the SeaPort program.

LOADING A TEXT FILE

Loading an appropriate text file being this simulation to life, but not any text file will work. This program expects a properly formatted text file containing all the information to create the “seaport world”.

Data File Format - Each item in the simulation will appear on a single line of the data file. The data lines will start with a flag value; indicating which item is being
specified, its name, its index, and the index of its parent - which is used to specify the

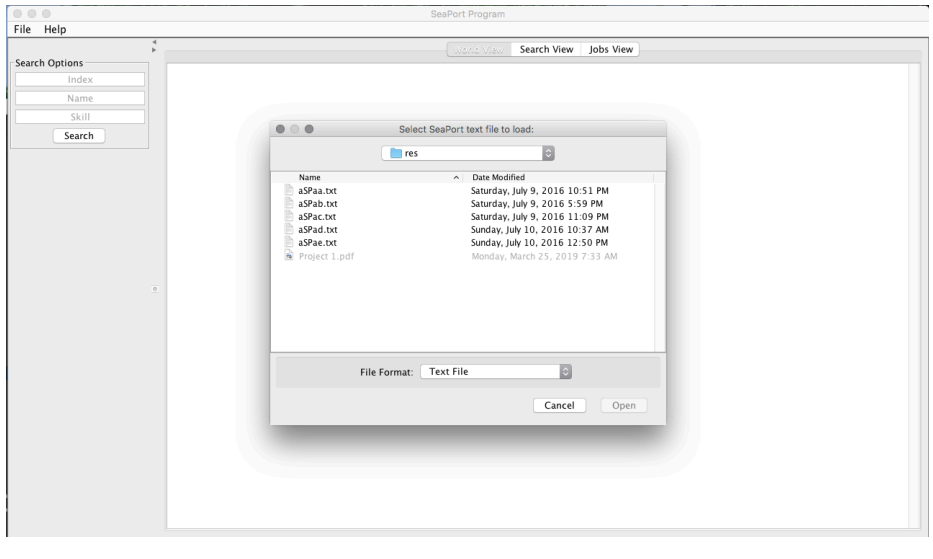
connections used to create the internal data structure. The fields on a line are expected to be space delimited, with one or more spaces. Comments are allowed and start with a double-slash("//"). Additionally, blank lines are also allowed and will not interfere with parsing the file. An Example of an acceptable file is provided below in *figure 5*.

Sample input file:

```
// File: aSPaa.txt
// Data file for SeaPort projects
// Date: Sat Jul 09 22:51:16 EDT 2016
// parameters: 1 1 5 5 1 5
//   ports, docks, pships, cships, jobs, persons

// port   name index parent(null)
//   port   <string> <int> <int>
port Lanshan 10000 0

// dock   name index parent(port)
//   dock   <string> <int> <int>
 dock Pier_4 20004 10000 30004
 dock Pier_0 20000 10000 30000
 dock Pier_1 20001 10000 30001
 dock Pier_3 20003 10000 30003
 dock Pier_2 20002 10000 30002

// pship  name index parent(dock/port) weight length width draft numPassengers numRooms
numOccupied
//   pship  <string> <int> <int> <double> <double> <double> <double> <int> <int> <int>
   pship         Gallinules 30000 20000 125.99 234.70 60.67 37.14 746 246 246
   pship           Remora 30001 20001 126.38 358.27 74.12 31.54 3768 979 979
   pship    Absentmindedness 30004 20004 86.74 450.43 33.13 41.67 2143 920 920
   pship       Preanesthetic 30003 20003 149.85 483.92 125.71 31.21 166 409 83
   pship         Shoetrees 30002 20002 134.41 156.96 120.31 35.20 1673 633 633

// cship  name index parent(dock/port) weight length width draft cargoWeight cargoVolume cargoValue
//   cship  <string> <int> <int> <double> <double> <double> <double> <double><double> <double>
   cship         Erosional 40001 10000 200.80 242.33 38.31 23.49 172.73 188.54 235.57
   cship         Kielbasas 40000 10000 120.85 362.55 96.82 19.09 33.08 188.31 261.57
   cship          Generics 40002 10000 79.90 234.26 73.18 15.71 125.27 179.00 729.95
   cship         Barcelona 40003 10000 219.92 443.54 104.44 34.16 86.69 139.89 813.72
   cship         Toluene 40004 10000 189.12 448.99 73.97 37.67 88.90 175.03 1002.63

// person name index parent skill
//   person <string> <int> <int> <string>
   person          Sara 50000 10000 electrician
   person          Duane 50002 10000 inspector
   person          Betsy 50004 10000 cleaner
   person          Archie 50003 10000 captain
   person          Thomas 50001 10000 clerk
```

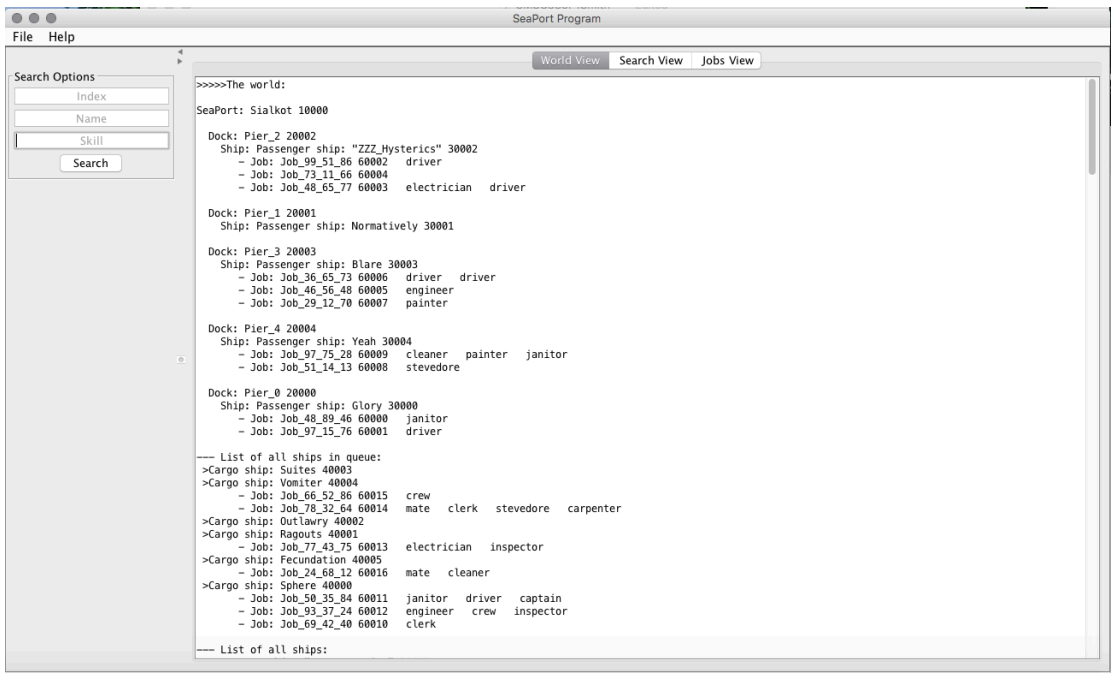
(*figure 5*)

Loading File - Provided a text file matching the data file guidelines above. The user can load it through the File menu, Load File option. Upon clicking Load File, a File chooser window (see *figure 6*) will open allowing the user to navigate to a text file. By default the chooser opens to the resources folder which provides numerous pre-generated seaport text files to load.



(*figure 5*)

Result of Loading File - After navigating to and loading a file, the file will be parsed and outputted to the World view. An example is provided in *figure 6*.

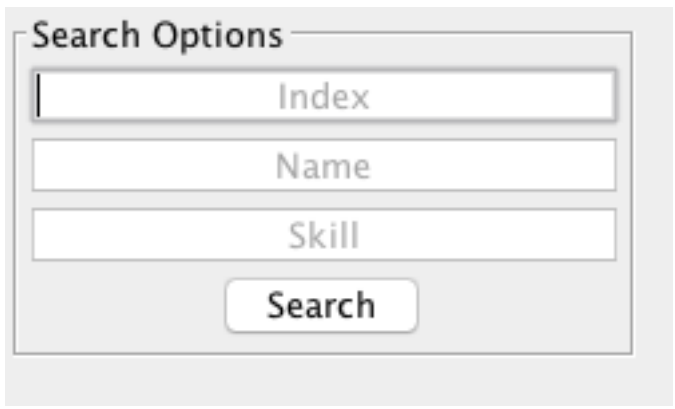


(*figure 6*)

At this point the user can start querying the data.

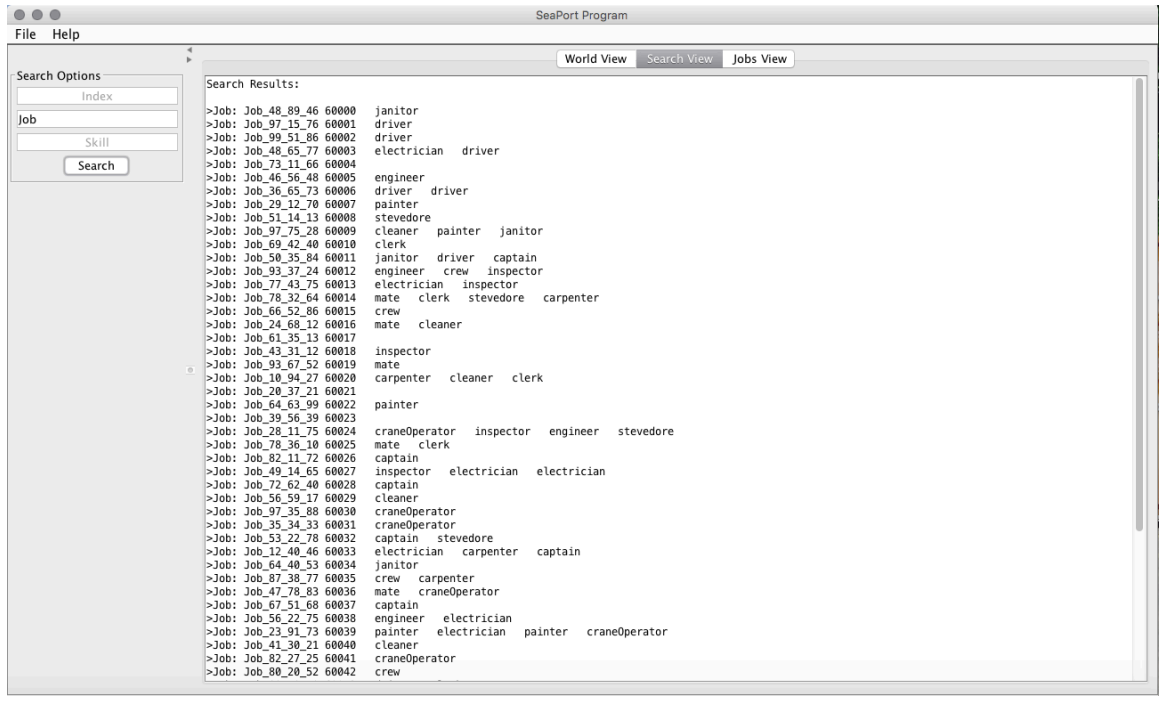
PERFORMING SEARCHES

Searching data is a important part of the SeaPort program. The user can search the seaport world data by index, name, or skill. To perform a search enter the search data in the appropriate textfield, they are labeled with the identity of which field performs what search (see *figure 7*).



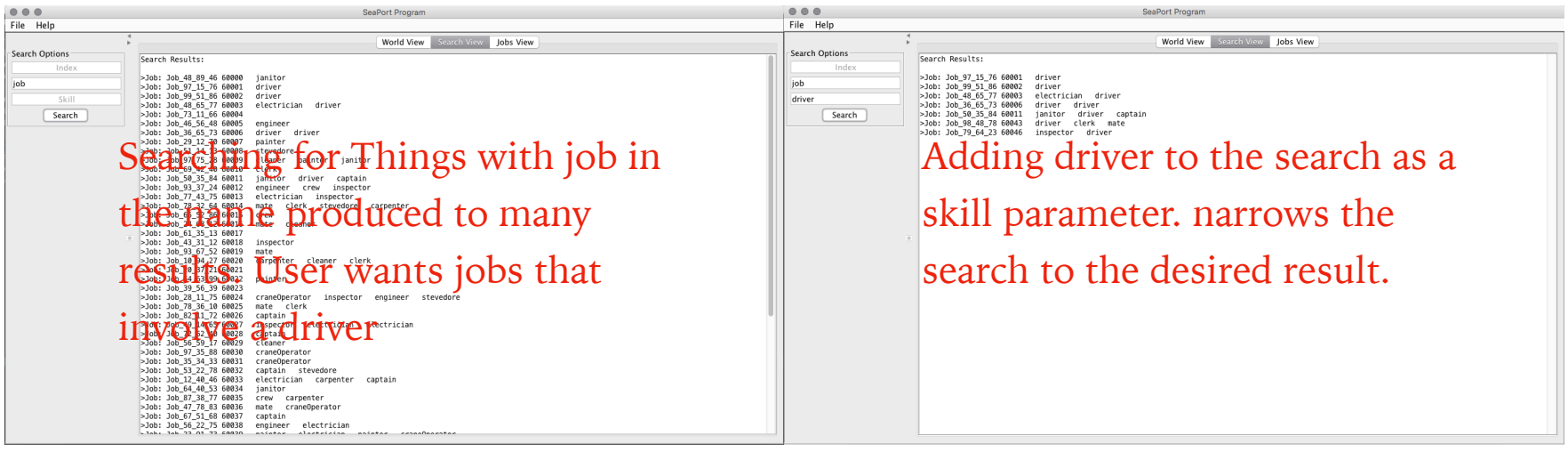
(*figure 7*)

Once the user enters the search term pressing the search button will switch the view to the search view tab and display results. An example of a search output is shown in *figure 8*.



(*figure 8*)

If the user wants to narrow a search, entering multiple search parameters in the other fields will narrow the search, for example if the user searches for Things with job in the name but determines the results need to be narrowed down further; the user can add an index or skill to the search. *Figure 9*. demonstrates narrowing searches.



Although, partial matches are allowed, for example If the user wants to find all skills starting with “ca”, he can use the partial term to find full results, such as “captain”, “carpenter”, etc.

WORKING WITH JOBS

Jobs are not yet implemented in this version (Version 1). Currently the user can only view jobs in the world view or in the search view as a result from a search. No other functionality is currently available for jobs.

SUPPORT

For any issue or errors encountered while using this program or suggestions please contact support @ huntercorps@yahoo.com.