**Project 4 Corrections and Clarifications**

**Updated 3/12/2017**

**Most recent items appear first**

**Page numbers refer to the pdf project document**

**NOTICE:**

**This document is part of the project specifications.**

**Your solution must follow these corrections and clarifications.**

**P. 17. Inconsistent description of Ship-not-found exception**

*Under Error handling, Model section, change to:*

‣ If asked to supply the pointer for an Island, throws an exception if no Island has that name. If asked to supply a pointer for a Ship, returns nullptr if there is no Ship with that name.  If an attempt is made to add a new Ship with the same name as an existing Sim\_object, a duplicate name Error will be thrown.

*Explanation:*

While developing the specifications, I considerably simplified this aspect of Model's interface. The starter files are correct, but I failed to correct all of my previous version of the document.

**P. 13. Missing error specification for View commands.**

All View commands except for **open** throw an Error if the View is not open. See the samples.

**P. 12. Cruiser::describe() specification missing.**

*Add:*

**describe.**Output "\nCruiser" followed by the Ship description, followed by "Attacking ", followed by the target ship name if in the attacking state. See the samples.

**P. 9, 13. Inconsistent information on when the View should be created, and when detached and destroyed.**

*P. 9: Change:*

Creates a View object and attaches it the model at the beginning of run(), and detaches and deletes it when run terminates.

*To:*

Creates a View object and attaches it the model when commanded, and detaches and deletes it when commanded or quitting program.

*P. 13: Change:*

1. The first word should be either "quit", the name of a Ship, or a command word.  
   ‣ If "quit", output "Done" and return from run() to terminate the program. Model’s destructor should delete all the current Sim\_objects; Controller's destructor should delete the View if it is still open; observe the order of destructor messages.

*To:*

1. The first word should be either "quit", the name of a Ship, or a command word.  
   ‣ If "quit", detach and destroy the View if it is still open,  output "Done" and return from run() to terminate the program. Model’s destructor should delete all the current Sim\_objects; Optional: Controller's destructor should detach and delete the View if it is still open. Observe the order of destructor messages.

*Explanation***:**

The specification was ambiguous because at first I planned to have Controller automatically create the View, and then have Controller's destructor dispose of it, but decided the **open**/**close** commands were a better preparation for the next project, but I left in the P. 9 description. Since the **close** command detaches and destroys the View, I decided it was more natural to have the **quit** command do this chore as well when the program is terminating, but I left in the language on P. 13 about ~Controller() doing the job.

Notice that the specifications for Controller's top level error handling should insure that the View is disposed of if any non-Error exception is caught. But if you want, you can have Controller's destructor dispose of an open view "just in case" there is a defect in your top-level code.

**P. 11. Missing description of Tanker::set\_destination\_island and speed.**

*Change:*

**set\_destination\_position\_and\_speed, set\_course\_and\_speed.**If the tanker state is not No Cargo Destinations, throw an Error. Otherwise, call the Ship:: functions of the same name with the same arguments.

*To:*

**set\_destination\_position\_and\_speed, set\_destination\_island\_and\_speed, set\_course\_and\_speed.**If the tanker state is not No Cargo Destinations, throw an Error. Otherwise, call the Ship:: functions of the same name with the same arguments.

**strings.txt - missing View open/close Error messages.**

These are messages emitted by Controller if the user tries to open the view when it is already opened or close it when it was not open. A corrected copy of strings.txt was uploaded 11:15 AM March 8. Download this corrected copy.

**P. 6. Clarification of Island behavior.**

Here is a detailed specification of Island behavior, like that in the detailed specification of the other components. Compare to the sample outputs.

**update:**If production rate is greater than zero, add production rate per unit time to amount available, and output the current amount.

**describe.** Output the position and fuel currently available.

**accept\_fuel.** Add the amount supplied to the current amount and output the new current amount.

**provide\_fuel.** Supply the requested amount, or the amount currently available, whichever is less, and subtract the supplied amount from the amount available, and output a message with the supplied amount.

**broadcast\_current\_state.** Ask Model to notify the views of this Islands position.