

**Concordia University  
Department of Computer Science  
and Software Engineering**

**Software Process  
SOEN 341 --- Fall 2006 --- Section H**

**Project Deliverable 2 Description**

**1. Second Incremental Code Build**

You have to deliver and demonstrate some code that implements the simulation of an engagement between two ships using their radars and weapons, i.e. demonstrate that a ship can detect an enemy ships with its radar, and use one of its weapons to shoot at the enemy, leading eventually to the destruction of one of the two opponents after they have sustained an amount damage exceeding their hit points. More specifically, and in addition to the preceding general goal, you have to implement the following features in this build:

1. radar and sonar.
2. At least one kind of ship enabling the possibility of an engagement, e.g. Battleship. For example, developing only the cruiser would not work, as a cruiser cannot attack another cruiser.
3. At least one kind of weapon available to the kind of ship you chose to implement, again enabling the possibility of an engagement, e.g. sea-sea missile. Note that any missile is supposed to be using a radar, as implemented in build #1.
4. Submarine, including sonar and the following weapons.
5. Torpedo, sub-sea torpedo.

The evaluation of your build will be based on your ability to effectively demonstrate that a running software is providing the above features, as well as its compliance with the above description and the overall project description. Come prepared to the presentation. Construct various and appropriate test cases that will demonstrate that your code is effectively achieving its duty.

You have to proceed with a demonstration of your build. The procedure for the reservation of a time slot for your demonstration is available on the web page. The goal of the demonstration is to effectively demonstrate that you have an application that implements the features as described above. The grading scheme of the demonstration is as follows:

Effectiveness and level of preparation of the demonstration	/2
Effective and complete demonstration that the above features	/5
Compliance with the above mentioned design constraints	/3
Total	/10

## 2. Project Scope and Plan Document

You have to deliver this document following the template provided on the course web page. A detailed grading scheme and instructions are provided in the template. In section 4 (Dynamic Design Scenarios), include three scenarios:

### **attack sequence scenario using a sea-sea missile:**

1. a ship locates an enemy using its radar (including media/simulation controller interaction)
2. the ship launches a sea-sea missile on the enemy
3. the sea-sea missile uses its radar to track the target
4. the target is hit and (maybe) destroyed by the missile

### **attack sequence scenario using a torpedo:**

1. a submarine locates an enemy using its sonar (including media/simulation controller interaction)
2. the submarine launches a torpedo on the enemy
3. the torpedo uses its sonar to track the target
4. the target is hit and (maybe) destroyed by the torpedo

### **attack sequence scenario using a sub-sea torpedo:**

1. a submarine locates an enemy using its sonar (including media/simulation controller interaction)
2. the submarine launches a sub-sea torpedo on the enemy
3. upon reaching its destination, the torpedo gets to the surface and launches the sea-sea missile
4. the sea-sea missile uses its radar to track the target
5. the target is hit and (maybe) destroyed by the missile

## 3. Evaluation

As stated in the course outline, the code build (1) is worth 3% and the document (2) is worth 7%, for a total of 10% of the final numeric grade.

## 4. Assignment Submission

All project assignments are to be handed in using the ENCS Electronic Assignment Submission system. A link to this system is available on the course web page. On the day of your build demonstration, you have to submit a zip file containing your document (see section 2 above), as well as your source code for this build. It has to be submitted by midnight on the due date of the assignment. A paper copy of the document also has to be handed in to the instructor (excluding source code).