



# SCENARIO EDITOR MANUAL

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V1.2

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## 1.0 INTRODUCTION

There are many functions in the SAI scenario editor, and some of them are relatively complex. However, to make a small simple scenario, only a fraction of the capabilities of the scenario editor need be used. In general, it is advisable to start by editing an existing scenario and making relatively small changes and see their effect before starting a scenario from scratch. Even when doing a large scenario, it can often be best to start with an existing scenario and modify it.

## 2.0 THE MAP

The first thing you should do if starting a new scenario from scratch is getting the map you want. The editor normally starts with a map of the North Sea. You can navigate the map to any area in the world that suits your scenario. When you are satisfied that you have the map extents that you want for the start of the scenario, select "Save environment" from the File menu. This will save an environment file that contains the parameters for your map. The program will then ask if you want to use this environment for your scenario. Answer yes.

Note that the map need not be perfectly aligned on the ships, as S&I will automatically zoom in to the players forces when starting a scenario.

If you need to add or remove layers to the map, you can do that if you select File – Edit layers in the main menu. This is normally not needed. Save changes to the environment if you have added or removed layers. You can often find layers called MineLayer, SearchLayer etc. in the list. These are used to show minefields and other data. They will be generated every time the

program is run. Removing them may destroy scenario data if you have created any minefields or search patterns or similar.

Important! Some environments are used for many scenarios. If you make changes and save the environment, it will affect all scenarios using that environment. When in doubt, it is recommended that you save under a different name.

## 3.0 SCENARIO DATA

Here you enter some basic parameters for the scenario:

- a. Day and Night Sighting: The Day and night starting distances are the starting sighting distances when the scenario commences. After the first turn the game will determine them depending on weather and time of day and sighting distance will change towards those "natural" values at 500 yards per minute.
- b. Wind Direction: Wind direction at start.
- c. Sea State: Sea state according to the Beaufort scale.
- d. Precipitation at start: This is subject to change during the course of a scenario.
- e. Weather trend: This will make the weather tend to go to better or worse weather, There is no guarantee though, weather is still variable, but the odds will be changed slightly
- f. Morning mist: This is the chance that there will be morning mist each

morning. This does not affect the situation at start, but is used on subsequent mornings. If your scenario does not span one or more days, this setting will have no effect. It is only applied to mist at dawn.

- g. Year, month etc: The starting time of the scenario. Note that the game uses Zulu (or GMT) time, since the local time can be different for different areas of the map or different ships. The local time and difference from GMT is given in the info bar at the bottom of the screen as you move the mouse over the map in the editor (and the game).
- h. Length: Length is the length of the scenario in minutes. A scenario will end when either: \* Game length is exceeded, provided there have been no sightings for the previous 30 minutes. \* Twice the game length is reached, regardless of if ships are sighted. \* All ships of one side are sunk or have reached their home location. \* A scenario ending objective is reached (see under objectives).
- i. Size. A hint to the player on the size of the scenario.
- j. No orders before first sighting. Check this to prevent the player from giving orders to his ships before any enemy ships are sighted.
- k. Briefing text: This is the briefing text for the scenario. This will be visible in the scenario selection screen.
- l. Map environment file. See under map above. This is usually selected

automatically.

- m. Sides: On the side tabs you enter the data for the sides of the scenario.
- n. Name: The name of the side.
- o. Flag file. The flag that side will use. Flags are simple bitmaps, so if you want you can make your own flags.
- p. Briefing: A briefing for that side, maybe a short description on what the player is supposed to accomplish or some advice.
- q. Player start pos: The position a force starts when controlled by the player. See Force data below to understand the concept of normal and alternate positions.
- r. Alternate chance: The chance that forces of that side will be deployed at the alternate point. See Force data below to understand the concept of normal and alternate positions.
- s. Scenario accuracy modifier. A modifier applied to gunnery by that side in the scenario, if for example one side in the scenario was badly trained or displayed bad accuracy. Note, accuracy is also affected by crew quality, but crew quality is limited to the range +2 to -2 to prevent excessive effects on damage control, spotting etc.
- t. Unspecified name: This is optional, and should only be used when you have made ships for a nation not included in the game and want to make a scenario with that nation. You can then do the ships of for

example Argentina as unspecified, and then enter "Argentine" in the unspecified name. When playing the scenario, the ships of that side will be described as for example "Argentine dreadnought" in the ship details dialog.

- u. Edit Briefing map: This is where you make the little map shown in the scenario selection dialog with the little red cross on it. Navigate the map to where you want, select the cross point and save the briefing map under some good name. It might be a good idea to end the name with "Brief" to keep them apart, but it is not necessary. The briefing file should be saved in the scenarios folder.

## 4.0 FORCES

Each side must have at least one force. You create a force by selecting "Create force" from the Scenario menu. You should call the force something descriptive, like the commanding admiral's name or the name of the force.

Some of the items found on the force dialog.

*Side:* The force can belong to one of the two sides, side 0 or side 1.

*Main Force:* This is a reference to the main force of the side. If a force is outnumbered or takes losses, it will often retire upon the main force, like Beatty at the Battle of Jutland. You do not need to have a main force.

*Mission:* This determines the aggressiveness of the force.

*Withdraw:* The force will be

extremely prone to disengaging.

*Cautious:* The force will fight, but be prone to withdraw when they are facing a superior force or take losses. Typical behaviour of the German Imperial Navy.

*Normal:* The force will have average aggressiveness.

*Attack:* The force will be more aggressive and keep on fighting for longer than an average force and against heavier odds.

*Force objective:* This is the point where all the divisions in the force will head when they have nothing else to do, unless they have a waypoint set (see below). After they have visited the objective, the force will return home. Note: If the division or force has no objectives to begin with, and there are no waypoint sets, they will consider the job well done and head home for the pleasures of the dockside taverns. So it is a good idea to give the force or division an objective point somewhere in the general direction you want them to go even in a simple scenario.

*Home:* This is the home port to which the force will attempt to withdraw after finishing its mission. Badly damaged ships and divisions will also go there when they detach.

*Home distance:* This is the distance from home that all the ships have to be within for the scenario to end from all of a side's ship having reached home.

*Waypoints:* Optional. Waypoints are for large scenarios where the forces are doing some kind of approach movement before battle is joined. In a small battle where the forces start more or less in contact you do not need to bother with the waypoint sets.

Waypoints are a set of up to 6 (0 to 5) alternative waypoints. The divisions in the force will attempt to go to the next waypoint when they are not involved in combat. At the start of a scenario, one waypoint set is selected dependent on a "Roll" of 1-6. Note that all forces of that side will use the same "Roll" for what set of waypoints to use. This means that all the forces of one side can be coordinated so that they follow the same plan (always a good idea :-)). Note that objective points (see above) will supersede the waypoint sets, so if they have an objective point, they will first go to any objective point, and then start on the waypoint set. This can be useful if you want one division to do something, like launching aircraft or bombarding something, and then rejoin the main force. You then just have to give that division an objective point where you want it to go.

*Alternate point:* Optional. In some scenarios you might want the whole force to start somewhere else to keep the player unsure of where the enemy forces are. There is a 50% chance the entire force and all its divisions and ships will be teleported to this point at the start of the scenario with their relative positions determined by their formation and role. The alternate point should be well to sea. This is used for example in the Jutland Operational scenario, where there is a 50% chance that the British, if computer controlled, will start at sea and not in Scapa Flow, to simulate their better intelligence on German intentions.

Like waypoints, alternate point is most useful in large scenarios where the forces are doing some kind of approach movement before battle is joined.

The following three entries can be made

separately for both the regular and alternate starting point.

*Time to raise steam:* This is the number of minutes from the start of the scenario that it will take the ships in the force to raise steam and be ready to move.

*Random time to raise steam:* A random number to add to time to raise steam. It will be the same for all ships in the force.

*Activate on sighting:* This means that the force will not start to raise steam until a first sighting is made of the enemy (by any unit of that side).

*AI controlled:* This means that the player will not have any possibility of controlling this force. This is often useful for coastal forces, or other forces that you want to keep out of the player's control.

## 5.0 MINEFIELDS

*Add minefield:* This will open a dialog where you set parameters for the minefield.

*Side:* The side owning the minefield.

*Density:* The risk of ships hitting a mine. Most minefields should be in the 2-5 range. Density 0 means that it is a suspected enemy minefield.

Most minefields were suspected by the enemy. When placing a minefield, you should usually place a corresponding enemy minefield with density 0 slightly larger than the actual minefield.

Completely unknown minefields should be rare and small, with low density. Large unknown minefields with high density can easily sink masses of enemy ships, which

would neither be fun in a scenario or very realistic.

*Random angle:* If you want the minefield to be randomly moved about at the start of the game, enter an angle of direction you want the minefield to be randomized. The minefield will be moved up to random distance along a line in the random direction OR in the opposite direction.

*Random distance:* The distance used in randomizing the location of the minefield. If a distance but not a direction is given, the minefield will be moved a random angle up to the random distance.

When you hit the OK button, the cursor will turn into a cross. Now you must select the corner points of the minefield. After clicking two points, you will see your minefield. When you are finished, right click on the map to exit.

Tip: You can use density 0 minefields to block off areas of the map where you don't want ships to go, for example narrow inlets. It might also be a good idea to set up generous 0 strength minefields around bases, to prevent enemy ships loitering in areas where they most likely would not have ventured in reality.

*Edit minefields:* This will show the edit minefields dialog. You can select a minefield (it will be highlighted on the map).

*Delete:* will remove the minefield.

*Edit:* will let you edit its parameters.

*Pick points:* will let you either

add points to the minefield or redefine all the points for the minefield. Often it is better to start over if it didn't turn out right.

## 6.0 SEARCH AREAS

Search areas are areas where enemy ships might be spotted by things that are not in the game, like coast watchers, merchant shipping or coastal patrols. They are also used for spotting by aircraft.

*Add search area:* will create a new search area.

*Side:* is the owning side.

*Category:* is surface or Air.

*Spot:* chance that something will be spotted in that area per minute. A value of 12 for example, means that on average, a force moving in the search area will be spotted every 12 minutes (this is a high value, a more typical value might be 30 or even 60 minutes).

*Title:* is what the player will be told has spotted his forces. For example, if you enter "trained penguins" the player will get a message that "13th DD Flotilla has been spotted by trained penguins". ("Coastal patrol forces" might be a more typical title).

After pressing OK, you will get a crosshair on the map; pick points like for minefields above.

*Air search areas* are a bit special. What you enter is actually an arc, where planes or Zeppelins will patrol. When picking points for an air search area:

- 1: Start with the point where the airbase is.
- 2: Click the point on the counter clockwise side of the arc corresponding to the range of the aircraft.
- 3: Click on the point on the clockwise side of the arc.

An air search area must have exactly three points. The actual arc will be shown on the map after you have finished editing.

The spot chance works a bit differently, as simulated planes will be flying around in the area. They will not be shown on the map though. A value of around 12-20 is usually good for air search areas, depending on the size of the area. A large area with a low value will result in few spottings.

The title works the same. A good title for an air search area might be "Seaplane from Borkum Naval Air Station" or similar.

## 7.0 SUBMARINES

Add submarine dialog.

*Side:* is self-explanatory.

*Availability:* is the percentage of time the submarine might be expected to be on station and ready for action. WW1 submarines were unreliable, so values between 20-60% would be normal, depending on circumstances.

*Downtime:* If you want the Sub to start lying on the bottom or not yet in the operations area, you can enter a number of minutes before the sub becomes active.

*Name:* is of course the name of the sub.

*Location:* is the starting location. Submarines will move around some during

the game.

*Random setting:* works the same as for minefields.

*Submarine type:* There are three types of submarines: Short range submarines simulate small coastal submarines. These should mainly be operating relatively close to friendly bases. They have a small supply of torpedoes, and after expending these they will return home. Minelaying submarines mainly come into their own in the campaign, where they will lay a small minefield at the location deployed. Due to the space taken up by the mines, they have a small supply of torpedoes, and after expending these they will return home. Normal submarines can be deployed anywhere and have no special capabilities or limitations.

## 8.0 TEST ALTERNATE

The test alternate button is for testing transfer of a force to its alternate point. Save before you do this! Do not save after you have done it, as the ships will then be saved in the alternate location, and your normal location will be forgotten.

## 9.0 SHIPS AND FLEETS

The fleets in S&I are organised in forces, which consist of divisions which contain the ships. Divisions will be in a relationship to each other, often with a Flag division being screened or followed by other divisions. It is important for the AI (and for players) that the ships in a scenario are organised in a coherent start formation and command structure, and with logical roles. Independent divisions will usually not act as logically and contribute to the greater good



of the force in a way that a division with a distinct role will.

The program will treat the first independent division it finds in the OOB as the force flagship for that force. It is therefore recommended that the strongest or most central division in the force be put as the first division in the force, and have its role set to independent. That will make the AI handle the force in the most realistic way.

*Course and speed:* will be the initial course and speed for the division.

*Formation, Role and Lead division:* see the main manual for explanation of these terms and their use. Note: The lead division property of the division is an important part of the force structure. Normally, only one division in each force will be independent, the force flagship division, with all the other divisions being led by a lead division, this is what makes up the force structure. Independent divisions will not care much about the rest of the force, and thus not make the best use of themselves as far as tactics goes.

*Objective:* This is for the AI. If you want to assign the division an overriding objective, use this. It is not necessary in most cases, but it can be useful if you want a division to go to a certain point regardless of other

Now, we assume that you have created a force already. Then we can create a division. The first division should be the most important division in the force, typically the lead division of the largest type of ship present.

Right click on the force and select Create Division. This will bring up the division dialog. Below is an explanation of the terms

in the division dialog.

*Division:* name is the name of the division, like 1st Battleship Division.

*Short name:* is an abbreviation of the name used where space is at a premium. In the above example it might be 1BB Div.

*Force:* is the force the division belongs to. This will be preselected to the force you added the division to.

*Objective:* This is for the AI. If you want to assign the division an overriding objective, use this. It is not necessary in most cases, but it can be useful if you want a division to go to a certain point regardless of other considerations.

*Waypoint index:* See above under "Force" for an explanation of the waypoint sets. This is the number of the waypoint the division is currently heading for. Usually this will be 0 at start, but in some cases you might want a division moving ahead or astern of the main formation.

*Probability:* is the probability that the division will be included in the scenario if the player uses variable forces. If it is 0, the division will always be included. Important: Set probability to -1 if you want the division to be dependent on its Lead division being included in the scenario. For example, if you have a battleship division that has a 50% probability, and a destroyer division escorting the battleships, you would want the destroyers to be included only if the battleship division passes its probability check. Then set probability for the destroyer-division to -1.

*Time to raise steam:* This is as for the force, if you want to set it separately. Note this will

be overridden by the value set for the force, so this should be used only if the rest of the force is ready to move but some divisions are delayed.

*Historical:* Check this if you want the division included when the player selects historical forces. Note that all divisions that do not have historical checked will be omitted if the player chooses historical, even if they do not have a probability value.

*Random angle:* If you want the division to be randomly moved about at the start of the game, enter an angle of direction you want the division to be randomized. The division will be moved up to random distance along a line in the random direction and in the opposite direction. This will be shown as a gray line on the map.

*Random distance:* The distance used in randomizing the location of the division. If a distance but not a direction is given, the division will be moved a random angle up to the random distance, in effect placed somewhere in a circle. The circle will be shown on the map.

*Adding a ship to the division:* By right clicking on the division you get another menu. Here you can among other things add a ship to the division.

*The Add ship dialog:* The first thing is to select the ship class. Click on the select button beside the ship class edit box to bring up a dialog where you select the file for that ship class from the ship library. You can also use the Find ship button to select from a list of all ships and classes in the game. Note, self designed ships will not be in the list, you have to use the select file button to load them. *Tip: You can edit the classes.cfg file to add self designed classes and their*

*ships, but the classes.cfg file might be overwritten by upgrades to the game.*

Then select the name for the ship. For a ship that Existing ships will be in a list in the game, so you can select the name of the ship from a dropdown list. You can also enter the name manually. As long as the class is valid, you can call your ship whatever you want, so you can add additional units to a class if you want.

*Division:* is the division the ship belongs to; preselected to the division you added the ship to.

*Crew quality:* should be between -2 to +2 in most cases. It will affect gunnery, damage control and spotting.

*Probability and historical:* is as for the division. Note that if the division is not included, the ships in it will never be tested. That means that if you give the division 50% and the ship 50%, the ship will only appear in 25% of the cases. Use the value for division if you want the entire division to appear or not, and use the ship values if you want to vary the number of ships in the division. You can combine them, but be aware of the cumulative probabilities.

*Engine damage:* Used if you want the ship to start with lower speed. Perhaps it starts damaged, or sometimes ships were in bad shape and could not reach their design speed, then give them 10% engine damage.

*Ammo level:* This is the percentage of ammunition remaining, if you want the ship to start with less than its starting load out.

*Mines:* This is if the ship is participating in a mine laying mission. Note that mines make

the ship vulnerable, they can blow up. The value you set is not the actual number of mines, but the number of minutes it will take for the ship to lay its mine cargo.

After adding the ship, its name will appear in the division tree. The number beside the ship is its point value.

*Other things you can do with the division:*

Copy division will create a new division with the same data in the same force, but without the ships. This can be useful if you are adding several destroyer divisions for example.

*Center map:* will center the map on the selected division.

*Pick location:* will change the cursor to a cross. Click on a spot on the map to move the division to that location. All ships will be moved correspondingly. If you can only see one ship, the others are probably all in the same location. See below.

*Place ships in formation:* This will place the ships in the division in whatever formation you have selected for them. Do not forget this, as otherwise all the ships will be in the same location when the scenario starts. This will have no ill effects, but it will look silly to the player.

*Place at scout/support/screen point:* This will place the division and all ships in it at the appropriate point relative to its lead division, if they have one.

*Move up:* will move the division in the tree display. This has no function other than to present the divisions in a logical order to the player, usually with the most important

ships at the top. Exception: The game will treat the first independent division it finds in a force as the force flagship division.

*Menu choices for ships:* These should be fairly self-explanatory now that you are familiar with the concepts.

*Important:* It is possible, and sometimes even desirable to have a ship appear twice in a scenario. When a scenario is started in SAI, if a ship of the same name and class or a Division of the same name occurs more than once in the scenario, the second and subsequent instances will be deleted after probability checks. This makes it possible to have a ship appear randomly in different squadrons or a squadron appear at different locations or in different forces in a scenario, thus increasing the possibilities to create variation in scenarios.

*Additional tools:* There is a function on the scenario menu to find all ships and divisions that appear more than once in a scenario.

There is also a function to get an overview of all divisions and ships in the scenario, and filter on some parameters. This makes it easier to see that all data and settings are as intended in a large scenario.

Lastly there is a function to find subordinate divisions to a division. This can be useful if you want to check that those escorting destroyers are really in place or something similar.

## 10.0 LOCATIONS

These are points on the map that represent cities or ports. They have no effect in the game and are purely informative for the player. They come in three sizes.

To create a location, select the locations tab and right click in the list to bring up the popup menu that lets you create locations.

*Note: The Base information is not used in the game yet. They are there in preparation for the campaign game.*

## 11.0 OBJECTIVES

Objectives are there for giving the player a goal in the scenario. Do not confuse these with the objective points for the Forces and Divisions, which are purely for the AI.

Some objectives are tied to a point on the map, others not. Some objectives will end the game when the condition is fulfilled.

To add an objective, select the objectives tab and right click in the list to get the popup menu. Selecting Add Objective will bring up the objective dialog.

*Side:* is the side the objective applies to.

*Force:* is the force it applies to.

*Goal:* is the type of goal to be achieved.

*Number:* is the number of whatever ship it takes for the goal to be achieved. This only applies to sink or don't lose or reach.

*Ship type:* is the ship type or ship types (some choices are combinations) that the objective applies to. Thus you can set an objective to "Sink 3 BB", which means that the player has to sink 3 battleships to accomplish the objective.

*Location:* is the point on the map where the objective is to be accomplished. In the case of lay minefield or reach objective, the

location defines the spot, in the case of sink or don't lose, it is just an indication to the player where the ships he is to sink are likely to be.

For land targets only, if a location is given for the objective, then land targets destroyed to fulfill an objective must be within 10000 yards of the objective location. If no location is then any land targets destroyed will count against fulfilling the objective.

*Point value:* Are the points earned for achieving the objective, or the points lost if a "don't lose" objective is triggered. Note that ship point values are often upwards of 100,000 points, so make the gain of accomplishing the objective stand in proportion to the risk to the ships. A rational player will not risk a 76,000 point battleship to gain 5000 points.

*Visible to enemy:* This determines if the objective will be visible to the enemy or not.

If "Ends game" is checked then the game will end immediately when the objective is reached. Can be used in scenarios where one force is fleeing or where the scenario is pointless to continue after a force has reached some location.

## 12.0 DISTRIBUTING THE SCENARIO

There are four files you need to distribute to those who are to play the scenario (Filename is the name of the scenario file):

1. The scenario file (Filename.nsc)
2. The briefing text (Filename.txt)
3. The environment file for the scenario (Whatever you called the environment .env)
4. The environment file for the briefing map (Whatever you called the briefing

environment file .env)

Players wanting to play the scenario should put the files into the SAI “custom files” directory.

Note also that if any self designed ships are included, you need to distribute these to the players as well. These should also go into the “custom files” directory.

### **13.0 THE BACKUP FILE**

Whenever you save the scenario, a backup file will be created of the previous version of the scenario. This is called Filename.bak. Thus, if you make a mistake or something goes wrong, you will always be able to restore the previous version of the scenario.

To go back to the backup file, just rename the file with the extension ".nsc" instead.