SAVO I

RULE the WAVES 3
Expanded Battles

MATRIX GAMES

NWS
NAVAL WARFARE SIMULATIONS

SAVO I

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CONTENTS

INSTALLING THE GAME

If you have purchased the game from our store, follow this procedure:
Navigate to the download file location. If the file you downloaded is a zip file, first extract all files within the zip archive, then go to that location. Double-click on the installation (executable, exe) file. The correct file name will typically include the words "SetupRelease". Follow all on-screen prompts to enter your serial key and complete the installation.

If you have purchased your game from the Steam Store, you can download the game by finding it in your Steam library and then pressing the INSTALL button.

Any games purchased from the Slitherine or Matrix stores available on Steam can also be registered for a Steam Key (as long as the game is part of our Steam catalog), allowing you to add the game to your Steam library.

If you purchased the game from our store while already logged into your site account, your game will have been automatically registered for you. Otherwise, go to https://www.matrixgames.com/member/mypage , or click on MY PAGE in the top navigation bar on our site and choose REGISTER SERIAL, pick the name of this game and enter your serial number that came with the download to register.

In either case, once registered you will see your game in your list of Registered Games and a button labeled STEAM KEY: GET YOUR KEY!. Click on that to get a Steam Key which you can activate to also get this product added to your Steam account.

UNINSTALLING THE GAME

Please use the Add/Remove Programs or Programs and Features option from the Windows Control Panel or the "Uninstall" link in the game's Windows START menu to uninstall the game. Uninstalling through any other method will not correctly uninstall the game.

PRODUCT UPDATES

To maintain our product excellence, Matrix Games and Slitherine release updates containing new features, enhancements, and corrections to any known issues. All our updates are free on our website (see more details in the section below) and can also be downloaded quickly and easily by clicking on the Check for Updates link in your Game Launcher.

REGISTER YOUR GAME, RE-DOWNLOAD YOUR GAME, BETA UPDATES

We also periodically make beta (preview) updates and other content available to registered owners. Keeping up with these special updates is easy and accessible by signing up for a Slitherine Group Member account. When you are signed up, you can then register your Slitherine Group products to receive access to these game-related materials. Doing so is a simple two-step process:

Sign up for a Slitherine Group Member account - THIS IS A ONE-TIME PROCEDURE; once you have signed up for an account, you are in the system and will not need to sign up again. Go to www.slitherine.com and click the SIGN UP button on the top-right, then click "Register" on the subsequent page after filling in your personal information. When you're finished, a confirmation email will be sent to your specified email account.

Register a New Game Purchase - Once you have signed up for a Slitherine Group Member account, you can register any Slitherine/Matrix title you own in your new account. To do so, log in to your account on either the Matrix Games website (www.matrixgames.com) or the Slitherine website (www.slitherine.com). Click MY PAGE at the top and then REGISTER SERIAL on the right to register your new purchase.

We strongly recommend registering your game, as it will give you a backup location for your serial number should you lose it in the future.

If you have already logged into your main member account when you purchased your game, it will be automatically registered for you as part of the purchase process.

Once you've registered your game, when you log in to the Members section, you can view your list of registered titles by clicking My Page. Each game title is a hyperlink that will take you to an information page on the game (including all the latest news on that title). Also on this list is a Downloads hyperlink that takes you to a page with all the latest public and registered downloads, including patches, for that particular title.

You can also access patches and updates via www.matrixgames.com/ member/ mypage Once there, select the game you wish to check updates for, then check the downloads link. Certain valuable content and additional downloads will be restricted to Group Members, so signing up there is always worthwhile.

Remember, once you have signed up for a Member account, you do not have to sign up again, though you may need to login again if you have signed out. At that point, you are free to register any product you purchase.

Thank you, and enjoy your game!

UNIFIED LOGIN SYSTEM

Slitherine and Matrix now have a new "Unified Login System". This system allows you to access the Slitherine and Matrix Games sites using just one username and password.

To merge your accounts so that they work for all Slitherine Group sites, go to (http://samelogin.slitherine.com/) and enter the details of one of your accounts (ie, either your Matrix or your Slitherine login).

You will then be presented with the option to merge your accounts (listed as "[Merge my accounts]"), which will then allow you to combine any other accounts you have or generate a user for another website using the exact details (For instance, if you were called "JohnSmith123" on the Slitherine site but had no account on Matrix, you could enter the details into the site and it would create a "JohnSmith123" account for Matrix as well, with the same password as the Slitherine login.)

GAME FORUMS

Our forums are one of the best things about Matrix Games. Every game has its forum with our designers, developers, and gamers playing the game. If you are experiencing a problem, have a question, or have an idea on improving the game, post a message there. Go to http://www.matrixgames.com and click on COMMUNITY and then FORUM in the top site navigation bar.

TECHNICAL SUPPORT

Should you have a technical problem with the game, the best way to get help is to post a note in the Technical Support sub-forum of the main game forum at http://www.matrixgames.com/forums. You'll then hear back from either our Matrix Games Staff, the development team, or one of the many helpful players of the game. This method is usually the fastest way to get help. Alternatively, you can contact our Help Desk at http://www.matrixgames.com/support/ or support@matrixgames.com. Support requests will generally be answered within 24 hours, except on weekends or US/UK national holidays.

SYSTEM REQUIREMENTS

Requires Rule the Waves 3 base game to play.
OS: 11, can work on Windows 10, but not officially supported
CPU: 1.2 GHz min, 2.4+ GHz recommended
Video/Graphics: No minimum requirement (no hardware video acceleration is required)
RAM 2 GB of system RAM, 4 GB of system RAM recommended.
Storage Space: 1 GB of free hard disk space
**DirectX version:** DirectX v9.0c or later
Sound: No requirements for sound
Display Resolution: 1366 x 768 minimum resolution required

PLAYING A SCENARIO

SELECTING A SCENARIO

To play a scenario, open the scenario selection screen. With the tabs to the left you can select between the stock scenarios that come with the game or user created custom scenarios. You can also open a saved game.
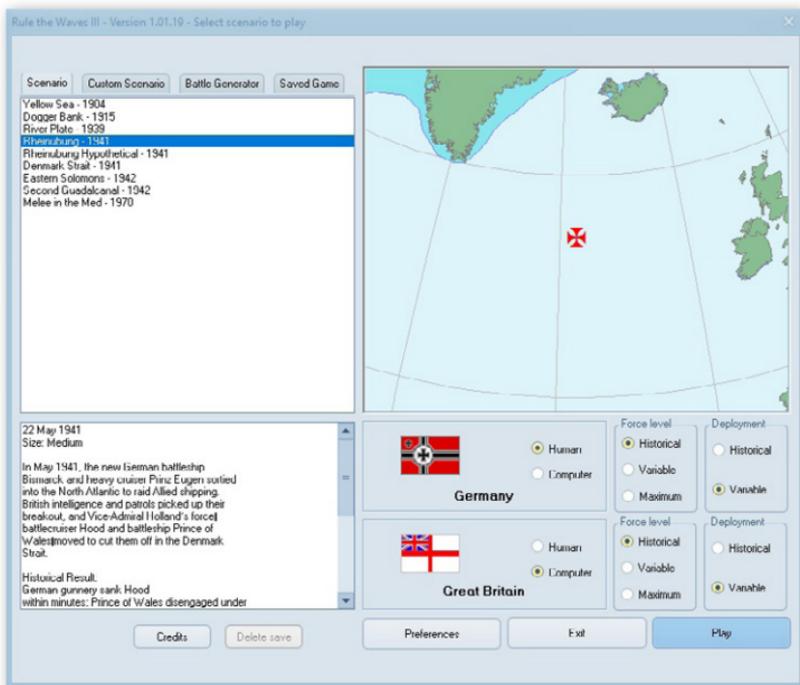

The scenario selection screen

When you click on a scenario, the screen will display additional information about that scenario. The navies involved, the date, the location of the battle, and a short description of the battle.

You can select which side to play. You can also select the force level. On force level "Historical" only those ships that historically took part in the battle for that side will appear. On force level "Variable", some hypothetical ships might appear, and possibly some ships that did take part will not appear. The probabilities are determined by the scenario designer. This setting will give the most replayability, and might give you a different challenge every time you play the scenario. On force level "Maximum", all hypothetical ships as well as the historical ones will be included for that side. This is the "Everything and the kitchen sink" setting.

With the deployment setting, you can determine where the forces will start. Historical is the historical start position. Variable is randomized according to the scenario design. Note that in some cases, there might be a small risk that the opposing fleets might not find each other on the variable setting.

When you are happy with your setting, press play to start the scenario.

For more details on how to control your forces and how to play the battle, please refer to the section "Your fleet in battle" starting on p 78 in the base game manual.
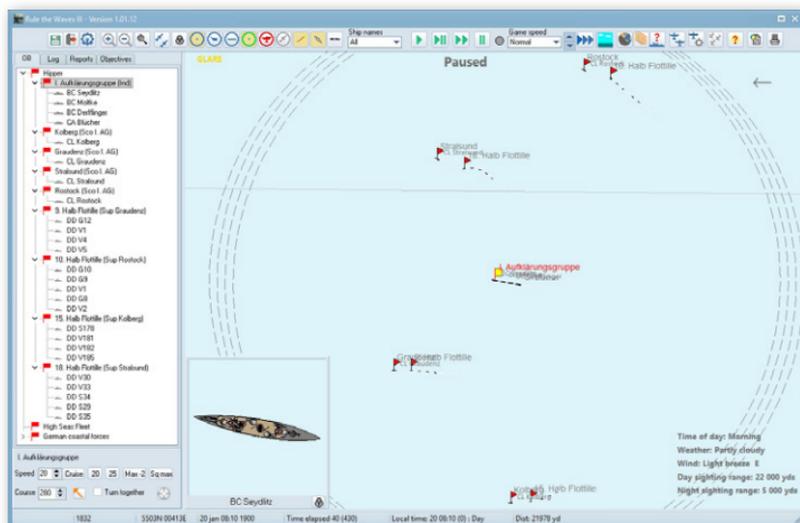
The German battlecruiser squadron at Dogger Bank

ENDING A SCENARIO

In contrast to the campaign battles, a scenario battle can be ended at any time. Using the "Exit battle" button will take you to the results screen. Just closing the battle screen will end the scenario without going to the results screen.

QUICK BATTLES

PLAYING A QUICK BATTLE

The quick battle function will create random battles between whichever nations you want at any time covered by the game. The ships will be randomly designed so that they are realistic for the chosen nations and time. This lets the player try any

*Selecting nations and year for a quick battle*

combination of nations at virtually any time. You can even try out navies from totally different eras. What would happen if Bismarck turned up at Jutland? Or if a modern US aircraft carrier turned up before Pearl Harbor, as in "The Final Countdown"?

To play a quick battle, you will first get to the Generate Fleets screen, where you will select the nations involved and the year the respective navies are from.

Usually, both the nations will be from the same year, but you can uncheck the "Same year" button and this will unlock the year selector for the enemy side and let you set the years to whatever you want.

When you are finished, press "Auto generate fleets". Generating the fleets might take some little time, but when that is done you will come to the "Battle location" step, where you click on the map to select the centrepoint of the coming battle.

After that you will come to step 3, where you will select the ships that will actually take part in the battle.
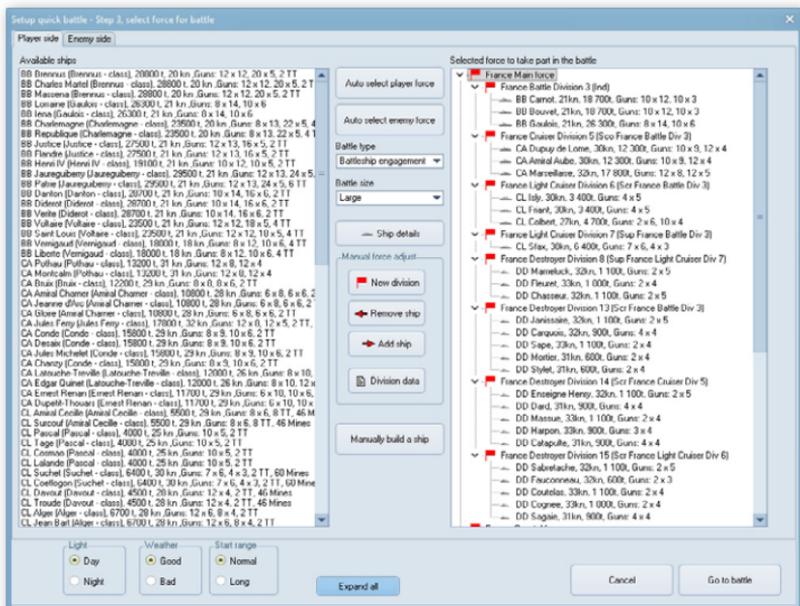
Select force for battle

Here you select the ships you want to take part in the battle. You can either compose your fleet yourself, or let the computer auto select your fleet for you. Or you can use auto select and then modify the result.

The participating fleets need to be selected for both sides, but note that you can use auto select for the enemy force and then not peek at the tab for the enemy force. That way you will not know the composition of the enemy fleet.

At this step you can also manually design a ship to add. In the design ship screen, you can also add a historical or previously designed ship. Use the "Load design" button under the graphics tab to load a ship design from a file (.sdf-file).

At the bottom of the screen, you select the time of day, weather conditions and starting distance. When you are finished, press "Go to battle", which will take you to the tactical battle screen.

For more details on how to control your forces and how to play the battle, please refer to the section "Your fleet in battle" starting on p 78 in the base game manual.

ENDING A SCENARIO

In contrast to the campaign battles, a quick battle can be ended at any time. Using the "Exit battle" button will take you to the results screen. Just closing the battle screen will end the battle without going to the results screen.

THE SHIP DESIGNER

USING THE SHIP DESIGNER

The standalone ship designer in Expanded Battles is basically the same ship designer as used in the RTW campaign. Here we will only explain what is different and special considerations. For other details, please refer to ship design in the base game manual, "Designing ships" p 23.
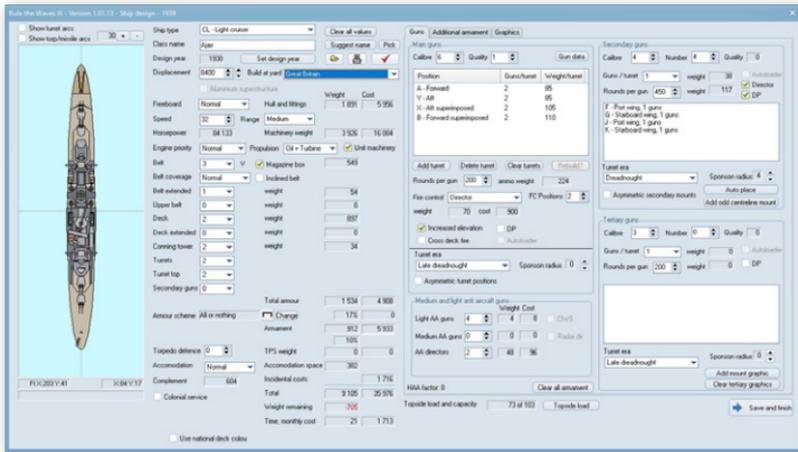
The Ship designer

When you design a historical ship, the first thing you should do is to set the design year. This is usually the year the first unit of the ship class was laid down. This value will govern the technologies available. It will also determine the armor quality and engine development level of the ship. These values will be used when the ship is in battle.

The standalone ship designer in Expanded Battles is free from the constraints applied in the RTW campaign on ship design. You can design a ship of any displacement, and you can freely add most types of equipment. It will not protest if a ship is over- or underweight. If a type of equipment should not be available, you can just increase the tech year to a point when that equipment is available.

When you use "Check design" function, you might well get some errors. These can be disregarded. You will still be able to use the "Save and finish" button to save your design. In other words, the design checks of the campaign are not enforced.

Important! If you have changed the design year for some reason during the design process, make sure you change it back to the year the first ship in the class was laid down before saving, as the value when saving the ship design will be used to determine the armor and machinery modifiers used in combat.

For more information on how technology is applied in scenarios, see the scenario editor section.

> **Note:** Ship design is an extremely advanced subject. The ship designer in RTW is designed to be used in a game environment, and not a fully fledged professional ship design tool. It gives reasonable results covering 80 years of ship construction for a wide variety of nations, but it cannot give accurate weight calculations for every ship ever constructed. If you design a historical ship and the ship comes in somewhat over- or underweight, do not worry too much. The designer will let you save and use the design anyway. Just ensure that the displacement is close to the real values, as that is used in combat calculations. Do not change the displacement just to get black numbers. The standalone ship designer will not give ships penalties for being overweight.

DESIGNING REBUILT SHIPS

Ships were often rebuilt and got substantially changed characteristics. If you need to design a rebuilt class design the original class first, or load it if it already exists. Add or remove equipment for the refitted version (change the design year if necessary). Then make sure you have changed the design year back to the original year (armor quality will almost never change in a refit, and we want the original armor quality) and save it under a new name. It is suggested to save rebuilt ships with the original class name plus the year of the rebuilt version, for example "Yamato44" for the 1944 version of Yamato.

SAVING SHIP DESIGNS

The ship designs are saved as files with the file extension ".sdf". Your own ship designs should not be saved in the same directory as the stock designs that come with the game. The default directory for user created custom designs is the user "RTW 3\Custom files" directory.

When the program looks for a ship design for a scenario, it will look in directories in the following priority:

1. The scenario directory.
2. The user "Custom files" directory.
3. The user Ship Designs directory.
4. The game "Designs" directory (this is where the stock designs that come with Expanded battles are located).
5. The game "Data\Ides" directory (this is because many coastal batteries, airfields and similar are located there).

If you put your own version of a ship class in the custom files directory, that version of the ship design will be used in all cases, including stock scenarios (assuming the file names are the same). Thus, if you have the strong opinion that this or that ship actually had ½ inch more deck armour that the stock design says, you can easily remedy that and have your own version used.

Some ship classes existed in different time periods under the same name. For example, there were ships named King George V or Scharnhorst in both WW1 and WW2. In those cases it is recommended to use differentiated file names to avoid confusion. For example the files could be called ScharnhorstWW1 and ScarnhorstWW2. The text in the Name field will be displayed as the name of the ship class in screens in the game, regardless what the filename of the ship design file is.

Many ships evolved over time as they were rebuilt. For example the Yamato in 1944 was different from its original state, and it had lost two secondary turrets and gained a lot of AA instead. To differentiate rebuild versions of a ship design, it is recommended to name them after year, so for example the 1944 Yamato could be named Yamato44.

For more information on where to save and how best to distribute and share ship designs for scenarios, see the section "File structure" in the Scenario editor section below.

THE SCENARIO EDITOR

THE STEPS OF CREATING A SCENARIO

Here is a general step by step description on how to create a scenario in RTW3 Expanded battles. The details of each step are explained later in the text.

1. In the ship designer, design any ship classes you need for the scenario that are not already used in other scenarios or come with the game.
2. Open the scenario editor.
3. Set scenario data with date, weather, nations involved and tech year. Edit techs if needed.
4. Create forces.
5. Create divisions in the forces.
6. Add ships to the divisions.
7. Make sure you have any aircraft types needed.
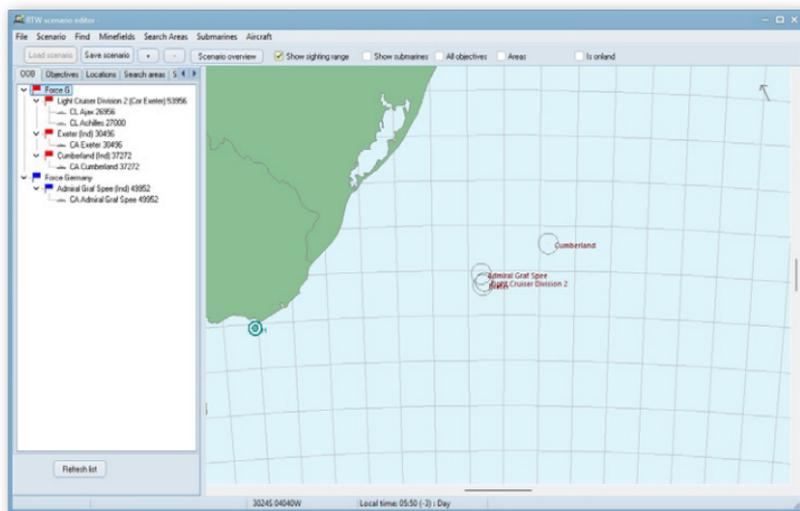
The main screen of the scenario editor

8. Add aircraft to ships and land bases that should have them.
9. Add any submarines that should take part.
10. Add recon areas, minefields and special areas if needed.
11. Check the scenario (use "Check scenario" and "Scenario overview") to spot any obvious problems.
12. Open the scenario selector screen to test run the scenario using the both computer setting to see that the scenario unfolds as expected and that the AI behaves as intended.

The easiest way to get started on scenario creation is probably to open up an existing scenario and edit it. That way you will get a feel for scenario creation without the overhead of creating an entirely new scenario.

FILE STRUCTURE

The stock scenarios that come with the game are in the RTW\Scenarios directory, and the ships that come with the game are in the RTW\Designs directory.

User created scenarios and ship designs should be saved in the user Custom files directory (it will usually be in the "Documents\My Games\Rule the Waves 3" directory) in a separate directory for each scenario. This directory should contain the scenario files that are saved by the scenario editor as well as any scenario specific or modified ship classes that are needed by the scenario.

Each scenario will be saved as four files, all with the same name, the one you give it when saving the scenario, but with different file extensions.

- ▲ ScenarioName.nsc is the scenario itself.
- ▲ ScenarioName.ndt contains the data for the nations in the scenarios
- ▲ ScenarioName.act contains the aircraft types used in the scenarios
- ▲ ScenarioName.txt contains the briefing texts for the scenario

When the program looks for a ship design for a scenario, it will look in directories in the following priority:

1. The scenario directory.
2. The user "Custom files" directory.
3. The user Ship Designs directory.
4. The game "Designs" directory (this is where the stock designs that come with Expanded battles are located).
5. The game "Data\Ides" directory (this is because many coastal batteries, airfields and similar are located there).

This means that if you have your own version of a particular ship class and that design file is in the scenario directory, it will be used when playing that scenario, instead of the stock design.

To share your scenario with others, make sure ship files that are unique to the scenario are in the scenario directory. You do not need to include stock ship designs that are used in the scenario.

Then zip up the scenario directory and share it, and other players who want to play the scenario can just unzip it in the "Custom files" directory in their user RTW directory. The scenario will then appear for selection in the scenario selection screen under "Custom scenarios".

THE SCENARIO EDIT SCREEN

The scenario edit screen will resemble the tactical battle screen with an order of battle on the left and a map on the right. The graphics representations of ships will be somewhat simplified compared to that used in battle.

SCENARIO DATA

The scenario data menu will let you open the scenario data screen. Here you will enter much of the basic information about the scenario. Time of day, weather etc. Most of these should be self explanatory, but some need a little more information.

Morning mist is the percentage chance that there will be mist each morning. Morning mist can have shorter or longer duration.

Scenario centrepoint is used for the start zoom in and by the AI for getting a sense of where the action should be concentrated.

Scenario size is purely an informational text displayed to the player when selecting scenario to play.

No orders before first sighting will lock the courses of the participating forces until an enemy ship is sighted.

The scenario data screen

The tech year of the scenario should be the year that the scenario takes place. Setting the tech year will set the tech of both the participating nations to the "normal" techs invented by that year. After setting the tech year for the scenario, you can then modify the exact techs of the participating nations.

NATIONS

There are two opposing nations in a scenario.

1. Select each nation from the drop-down menu. The dropdown menu lets you select from the nations currently in RTW.
2. Then set the tech year. This will set all technologies to the standard techs for that year.
3. You can then adjust the techs manually via the edit techs button. This lets you fine tune the techs for the participating nations.

Note: When you set the tech year, any manual adjustments to techs will be lost. So start with the general tech year, then make fine adjustments to national techs.

Do not forget to set the national doctrine, as this affects many aspects of behaviour in the battles. For example, a Japanese WW2 force should probably have nightfighting and torpedo warfare training, as well as use oxygen torpedoes for all ships.

The nation data for the scenario is saved in a file called Scenario Name.ndt

A NOTE ON TECHNOLOGY AND TECH YEARS.

Techs will affect most things when the scenario is fought, for example the general fire control modifer will be based on the techs, as will tech related abilities like smokelaying, loose formations etc. Damage control is also based on the current

technology when the scenario takes place, as ships are assumed to have been retrofitted with equipment.

The tech tree as modified in the scenario editor is saved in the nation data when the scenario is saved.

Important! What one must keep in mind is that the scenario exists in one point in time. The ships on the other hand are designed and built at another point in time tech wise, an earlier point.

The ship designs will have all equipment they are equipped with when they are made in the ship designer. They will also have with them the engine development level and armor development level. These are used in tactical combat. Armor from 1900 is not of the same quality as armour from 1940. And lower engine development level ships are more prone to overheating and breakdowns.

SUMMARY OF TECHNOLOGIES AFFECTING THE SCENARIO

National technologies affect modifiers, weapons, and tactics used on a global level for that nation.

Doctrine choices similarly affect modifiers, weapons and ammo loadouts on a global level for that nation.

The design year of a ship design will affect technology modifiers for that specific ship class, most important are armour and engine techs.

Individual ships have a radar level that affects that particular ship. They also have a build year that affects obsolescence and VP.

FORCES

Each side can have a number of forces. A force can have another force as its main force, and will generally adapt its movement to the main force. For example, the British Battlecruiser Force at Jutland would have the Grand Fleet as its main force.

Forces will have subordinate divisions. The divisions will have roles that determine how they act within the force in relation to the flag division. Se the base game manual, section "Roles" on p xx for more details.

The edit force screen

SETTINGS FOR FORCES

Main force is the main or flag force for that side in the scenario. Other forces that are AI controlled will generally try to conform to the main force. A force does not have to have a main force, but in that case it will act independently. Forces that contain only land units need not have a main force.

Aggressiveness determines the persistence of an AI-controlled force. A withdrawing force will always try to avoid combat. A cautious force will tend to

withdraw at a lower damage level than a normal force. A force with Attack orders will be more aggressive and will not withdraw easily.

Force objective – see below.

Home distance is used for determining when all ships of that force are "home" and the scenario can end. When all divisions are within this distance from a friendly port, the scenario will end. (in 1000s of yards)

Intercept range is the maximum range at which a force will try to intercept enemy forces reported. A value of 0 means it will not try to intercept enemy forces. This range is given in nautical miles.

The **AI control checkbox** should be checked for forces that the player will not control. It can be another force that historically was not under the control of the admiral commanding the protagonist force.

Home point. If this is defined, ships of that force will retreat towards that point if no friendly base is closer. This can be useful if friendly ports are in an unsuitable direction or far away. If left at 0,0 it will have no effect.

> **Important!** AI control should always be checked for land air bases and coastal artillery.

FORCES AND WAYPOINTS

A force has six sets of waypoints to help the AI move in a purposeful way. At the start of a scenario, the AI will randomly select one of the six waypoint sets for the force to use for its initial location and movement. A force will follow the selected waypoint set until the first sighting report of the enemy. After the first enemy sighting report, the AI will make its own decisions.

The waypoints are mostly useful when no enemy ships are sighted by the force. Waypoint sets are not mandatory. In a short-range scenario where the forces meet immediately, they might be unnecessary. However, if you do use waypoints for a force, you should do all six sets.

A waypoint set consists of a number of points which the force will follow consecutively in its movement. The points in the waypoint set are referred to by their index, which will start at 0 and up to the number of points in the set. The number of points in each set can be variable.

Note that there is one die roll used to determine the waypoint set for all the forces on that side. Thus, you can coordinate the movements of several forces on the same side in scenario design. For example, if 2 is rolled, all forces on that side will follow their respective waypoint 2 sets.

Example: The German force in the Rheinübung scenario in the picture above has six waypoint sets for its movement, two to the east of Iceland and four to the west of Iceland, each showing in a different colour. The force will likely start at one of the #1 waypoints, given its probability settings. Note how the first waypoints in each set have been spread out so that time and approach direction will be varied depending on waypoint set chosen.
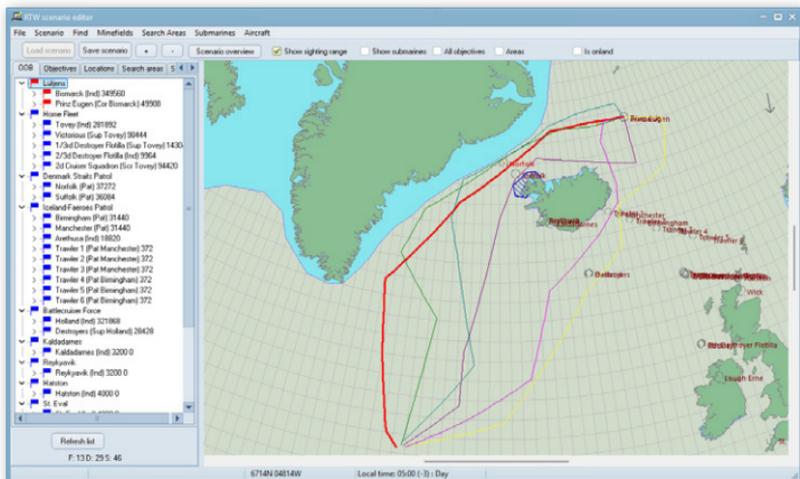
Showing the waypoint sets of the German force in the Rheinübung scenario

FORCE WAYPOINT SETTINGS

Chance to start at waypoint index is the chance for a force to start at a waypoint index rather than the default location. This is used to make the force in effect start at six randomly determined points.

The **WP index to start at** if this happens is given in the next box. This will usually be 1.

Time to raise steam is only applied to forces that start the scenario in port. If a force has start Idx -1 (in port), time to raise steam is applied. If "activate on sighting" is checked, time to raise steam starts to count when the first enemy sighting report comes in. This is to be able to simulate a fleet going to sea when the enemy is sighted (what the Germans planned would happen at Jutland).

If a force has no waypoints, but has a main force, it will adapt its movement to its main force. This can be used for a scouting or covering force in some situations.

The **activate on sighting** setting is used for forces in port. They will not move until the enemy is sighted, and then they will have to raise steam before being able to leave port.

FORCE OBJECTIVE

There is a possibility to set a force objective. This objective will override the waypoint sets, and the force will go there first before following its waypoints. Use this if you want the force to pass through a specific point, for example when exiting port, or if you want to make sure the forces meet in a scenario when enemies start close together and there will not be much manoeuvring before the combat starts, for example in the River Plate scenario.

Important! The force objective will be applied before the waypoints, so if you set a force objective, the force will move there first, before following the waypoints. Thus, in most cases you should either use the force objective or the waypoints to govern the behaviour of a force.

DIVISIONS

Ship divisions will be created under the force HQs. Select a force and right click to add divisions.

Adding a division will open the edit division screen, where you can enter data for the newly created division. Most entries should be self-explanatory. Formation, role, and lead division are the same as those used in battle.

Waypoint index is the index of the current waypoint in the active waypoint set of the force that the division is heading towards. There will normally only be a need to set this for the flag division of the force, as the other divisions in an AI controlled force will move relative to the lead division. The index should normally be 2, as waypoint index #1 is used for the initial randomization, and you then want them to set off for waypoint #2.
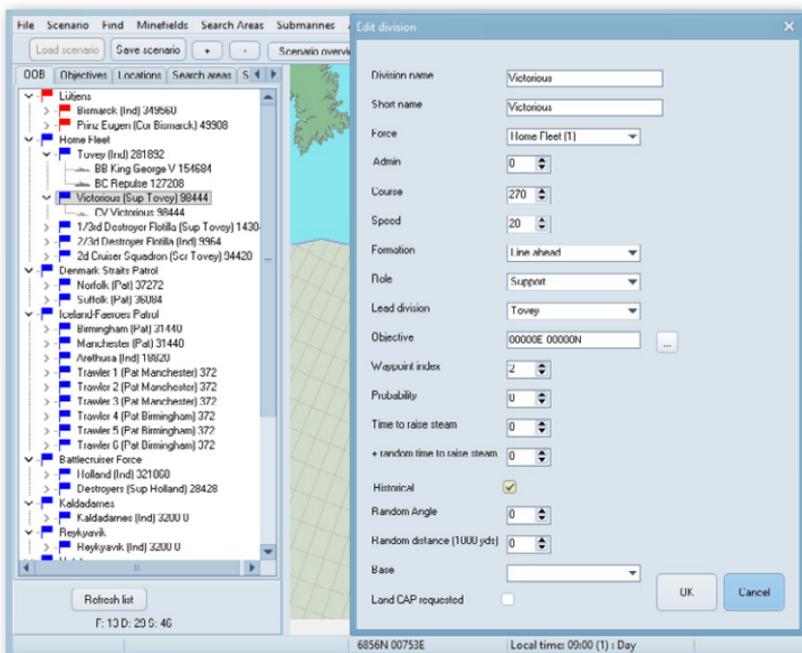
The edit division screen

Divisions can have randomized starting locations. This is in addition to the variations to the force starting points dependent on waypoints described above. Randomized start locations for divisions are not needed, but can be appropriate in some cases. The divisional start point randomization will be applied after the force start point depending on waypoints has been determined.

To set random start positions, select values higher than 0 for random direction and random range. If random direction is 0 but range is greater than 0, the direction will be randomized, in effect placing the division within a circle with the random distance radius. This is shown as a dotted circle on the map.

If both direction and range are higher than 0, the division will be placed along a line with the bearing given in direction, or 180 degrees in the other direction. This is shown as a dotted line on the map.

PROBABILITIES FOR SHIPS AND DIVISIONS

You can set a probability value both for divisions and ships. This is the % chance that the ship/division will be present when playing the scenario. The purpose of this is to increase scenario variability and make the player uncertain as to what enemy ships he will meet.

If the user selects maximum force, all possible ships will be included for that side, in effect assuming a successful probability roll for all ships.

There is also a historical check box for ships and divisions. If the user selects historical forces, only the divisions and ships marked as historical will be present. Thus, mark all divisions and ships that historically took part in the battle as historical.

Note: If a division fails its participation roll, none of its subordinate divisions will take part.

A subordinate division with probability set to -1 will be present if the lead division is present. In addition, if the lead division has a randomized location, this subordinate division will always be moved in relation to its lead division. This means it will keep its position relative to the lead division even if the lead division is moved around by its randomization.

SHIPS

Ships are added to the divisions. Select a division and right click to add ships.

Each ship has a class, which is the same as a ship design file. When you add a new ship, you select the class by selecting the design file (with extension .sdf) of the ship class, either from the stock designs or from custom designs.

Crew quality should normally be between -2 and 2, with 0 being an average ship crew.

Note also that radar is set per ship, not per class, as the radar installed often differed between ships of the same class.

Ship probability is set according to the same principles as division probability. A division will never be reduced below one

The edit ship screen

ship by ship probability checks. That means that if the division passes its probability check, there will always be at least one ship in it.

There is a build year per ship in the scenario. Note: The build year is only used for calculating ship obsolescence, VP and for historical interest. The tech year of the class is determined when the ship is designed in the ship designer.
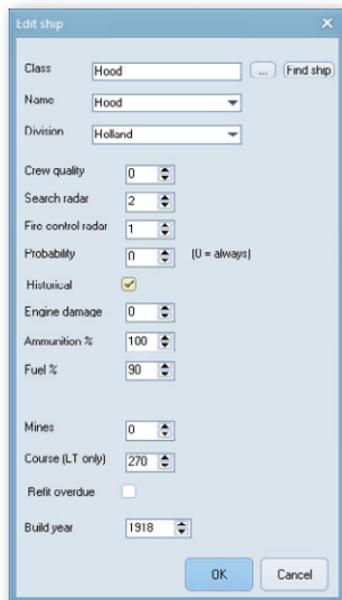
COASTAL BATTERIES AND AIRBASES

These are treated just as ships except that they obviously are on land. They have a force and division structure, just like ships. To create airbases, follow the steps below:

1. Create a new force (Add force in the scenario menu). One force for each airbase is recommended, as search pattern is set on force level.
2. Set the force as AI controlled. Most other force data except name can be ignored for land bases. Important! If you do not set it to AI controlled, it will not launch any aircraft!
3. Add a division to the force.
4. Add a ship to the force. For the ship class, navigate to the Data\Ides directory and select a suitable airbase.
5. Pick location for the "ship".
6. Add the aircraft.
7. Set search pattern etc as usual.

For Airbases, it is often best to have each airbase under its own force, as air recon and CAP is determined on the force level. The exception could be if there are several airbases grouped close together, like around Port Moresby at the end of the Guadalcanal campaign.

AIRCRAFT

You have to define the aircraft types that are needed for the scenario. You can also import aircraft types from another scenario. This saves a lot of work, as many aircraft types will appear in several scenarios.
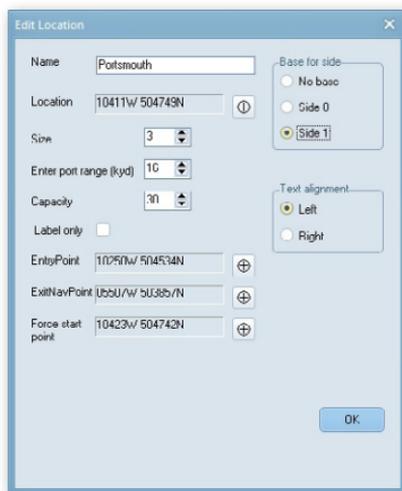
Then add air units to those ships and land bases that should have them.

Do not forget to edit the air search directives and CAP level for ships and bases that have aircraft.
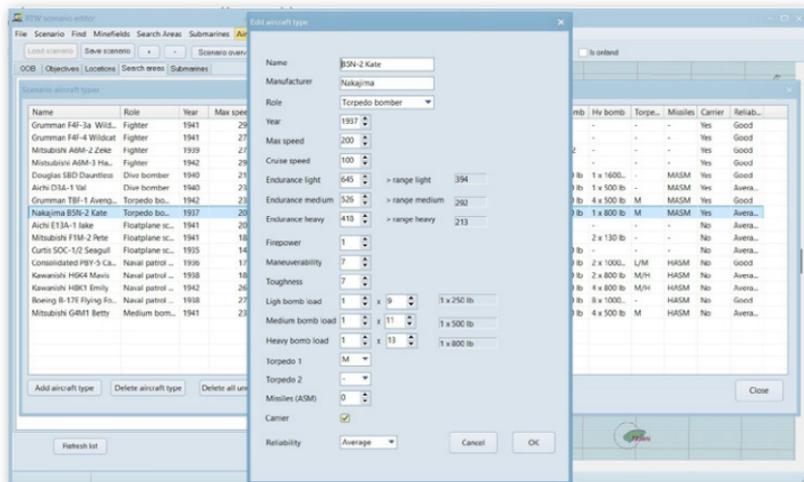
Editing an aircraft type

PORTS AND BASES

The edit location screen

To add and edit ports, use the locations tab. Right click to bring up a menu. Below is the edit location dialog.

Name is the name of the port or base.

Location is the coordinates, picked from the map.

Size is the size of the port. 1 will be no port, just a location. 2-4 determines the size of the map symbol.

Enter port range is the range at which ships will be asked if they want to enter port.

Capacity is how many ships can be in the port. Not used for now.

Label only. If checked, it means this is only an informative label on the map, like "Dogger Bank".

Entry point can be used to set a point further out from the port. This is used to determine triggering of the enter port query. Can be useful if the port itself is in a tricky location to reach for ships.

Exit nav point is a point that will be used as the first leg for ships exiting the port. Useful if there is tricky navigation to exit the port to the open sea.

Force start point is not used.

Base for side determines which force can use the port as a base.

Text alignment determines if the name text is to the right or left of the symbol on the map.

RECON AREAS

Recon areas can be used if you want there to be a chance that ships entering an area are discovered by coastwatchers or civilian shipping or similar. For example, in the Eastern Solomons scenario, there is a recon area in the Solomon islands representing coastwatchers.

The chance for a ship to be spotted in a search area is one in spot value, that is if the spot value is 50, there is a 1/50 chance for a ship to be spotted every minute. The spot value is doubled in twilight and tripled at night for this calculation.

MINEFIELDS

Minefields can be used to create small unknown minefields or large semi-permanent minefields or to generally make an area no-go for ships of one side.

Minefields can be either own or enemy. They can be known or unknown.

Known enemy minefields should have the side Idx of the affected side and a density of 0, which will make them visible areas on the map. They will also prevent

ships moving into the area. For example, a minefield that is known to side 1 and will block their ships from moving into the area should have a side of 1 and a density of 0.

Usually, a minefield known to the enemy should have a corresponding "real minefield" inside it and slightly smaller, otherwise the other side can move freely through what should really be a mined area. You can see how this is used if you open the Dogger Bank scenario in the scenario editor. The minefields defending the German Bight are a large known enemy minefield for the British, but from the German side, there are known lanes through the actual minefields.

Unknown minefields have a density that determines the risk/chance of opposing ships striking a mine when entering. When a ship moves in the minefield, a D 200 is rolled (modified by ship size and speed). If that is less than or equal to density, the ship hits a mine. A density of around 5 is usually about right. Large minefields with high density will be very deadly, so try to keep unknown minefields small and/or relatively low density.
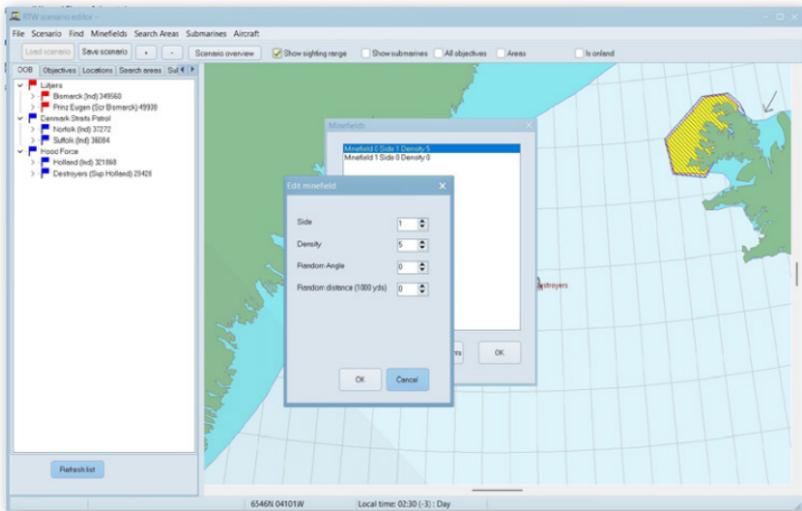
Editing a minefield

"Friendly" minefields are always visible to the owning side. Ships cannot move into "friendly" minefields. After all, mines have no friends as they say.

When creating or editing a minefield, after clicking OK in the edit minefield dialog, you will be taken to the map screen and the cursor will change to a cross. Left click on the map to add points defining the minefield, right click to complete the minefield.

OTHER AREAS

There are two other areas that can be used to influence AI behaviour.

- ▲ You can define areas as high-speed areas, using the density value to set a speed. The AI will try to keep this speed when in that area. Used in Rheinübung for example, to get the German squadron to pass Iceland at 24 knots instead of the regular cruise speed, which would be 20 knots.
- ▲ You can also define areas as non-visible no-go areas. These can be defined either for carriers or for all ships. The purpose is that you can make sure the AI will not go too near enemy airbases or drive carriers into constricted waters or similar.

Note that area type breakout zone is not used at present.

Side 2 is intended to be used for "neutral" zones, but is not used at present and has no effect.

SUBMARINES

When adding submarines, there are a couple of values that should be explained.

Availability is the general technical state of the submarine. It should generally be around 60 in WW1 and around 90 in WW2.

Downtime can be set if you want the submarine to have dived deep and be temporarily unavailable. This value is the time in minutes that the sub will stay deep. Usually this can be left at 0.

Accuracy is torpedo firing proficiency. Should normally be 0, but can be set to 1 for extra proficient subs, and to -1 for subs that performed poorly.

OBJECTIVES

Select the objective tab to add or edit objectives. Right click to show a popup menu to add new objectives.

Each objective should have a **side** that it applies to.

The force is the **force** that should fulfil the objective.

Goal is what should be accomplished to fulfil the objective.

Editing an objective in the Dogger Bank scenario. If force Hipper reaches the objective with 3 battlecruisers, the scenario ends and the German side is awarded 50 000 points.

- ▲ Sink means sink ships of the appropriate ship type. They must be sunk within 100 nm of the objective location.
- ▲ Don't lose means don't lose ships of that type.
- ▲ Reach means reach the objective location with the appropriate ship type and number. The objective is triggered when the ships are within 5000 yards of the objective.
- ▲ Lay mines is lay a minefield at the location.

- ▲ Blockship is move ships to the appropriate location, where they will be automatically sunk.
- ▲ Reach if light opposition mean the same as reach, but the AI will abandon this if it discovers it is outnumbered.
- ▲ Reach and land troops means the ships will stay frozen at the location unloading (objective points are scored, but this gives the enemy a chance to sink them for the ships sunk points).

Number is the number of ships of the defined type that are needed to trigger the objective.

Ship type is the ship type that is needed to trigger the objective.

Location is the location of the objective.

Alternate location. If used, there will be a 50% chance the objective will be located there instead. Leave at 0,0 to be unused.

Point value is the points gained for accomplishing the objective.

Ends game means the scenario ends immediately when the objective is fulfilled.

Visible to enemy means that the objective can be seen by the enemy. If unchecked, it can not be seen by the enemy.

CHECKING THE SCENARIO

You should use the "Check scenario" function in the main menu under "Scenario". This will help you notice things you might have forgotten or missed when editing the scenario. For example if waypoint sets have missing waypoints or if probability settings have been forgotten.

Items that are reported under check scenario does not necessarily mean that something is wrong, it is more of a reminder. For example, in a small scenario, it can very well be unnecessary to use waypoints, but check scenario will still remind you that forces lack waypoints.

You should also use the "Scenario overview" function. This will show a table with all forces, divisions and ships. It will help you spot mistakes or overlooked settings in the scenario. The columns in the table are:

- ▲ The name of the force, division or ship.
- ▲ Force mission or Division role.
- ▲ Division formation.
- ▲ Main force or Lead division for that force/division.
- ▲ Distance to main force or lead division, if any, in nautical miles. For forces, the number should probably be in tens of nm, for divisions usually below 10 nm. This number will help you spot if some divisions have unintentionally been placed in unintended locations too far from the superior formation.
- ▲ Speed of divisions/ships.
- ▲ Course of divisions/ships.
- ▲ Probability that the division/ships will appear in the scenario if using variable forces (0=always).
- ▲ If the ship/division is marked as historical.
- ▲ Raise steam value.
- ▲ Division admin value or Ship crew quality.
- ▲ The point value of ships. This gives a rough idea of the fighting power of the ship, and is also used to award victory points for damaged and sunk ships when playing the scenario.
- ▲ Dist to obj is the distance in nm to the force or division objective, if any. This value should normally be low or non-existent. Remember that force/division objectives will override the AI waypoint, and should usually only be set in specific circumstances. In many cases this column should be empty (showing that no force/division objective is set).

Note: you can edit ships, forces and divisions directly from the overview screen. This is useful if you notice anything that is amiss.

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