

WAR IN THE PACIFIC

Admiral's Edition

Editor Manual v2_3

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1. Introduction

The AE database Editor is a powerful tool used to create new or alter existing scenarios. The game is highly detailed with each ship, TF, aircraft, air unit, ground unit, leader and base and other stuff having their own unique set of historical data so to build a scenario from scratch would require all of that data to be entered, taking a loooong time to do so.

The editor does not allow you to create a new scenario from scratch. Instead you have to load an existing one, alter it's data before saving it back as a new scenario. For this reason it is therefore always best to load and edit an existing scenario that closely matches your required time frame and scenario size, only altering or creating data relevant to your scenario. Strictly speaking you are therefore not creating something new but modifying something.

Nearly all the information in game can be manipulated with this tool but there are a few things that cannot be altered, such as fuel and supply already loaded on ships at the start of any scenario. Apparently this is hard coded and was done in order to prevent scenarios becoming unbalanced. That said there are ways to overcome some of these hard coded problems when a scenario starts.

Any changes you make are not automatically saved so make sure you save them. Equally important is to make sure you do not overwrite an existing scenario as you cannot get the old data back without having some form of back up. Having said that, the editor does prevent you from overwriting any official scenario, i.e. those that come with the game.

Along with the game's main manual, the editor manual provides all the information you need to create your own scenarios.

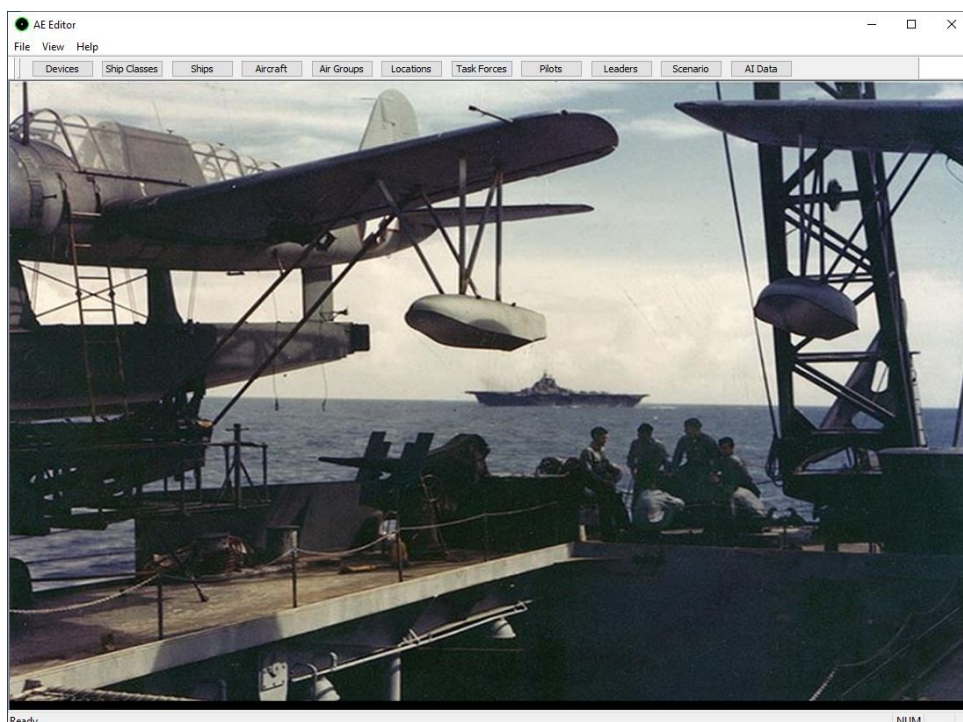
Important Note: This program cannot be used to edit a saved game. It's sole purpose is to create new scenarios not edit saved games.

2. Interface

For convenience the editor is located in the game's scenario folder although it will run from anywhere. Further, you do not actually need the game to be installed to use it although you won't have access to the editor unless you have at sometime installed the game. All the editor needs is access to WitP AE's scenario's which are usually stored in the same scenario's folder.

There are two versions of the editor available, AE Editor64.exe for 64-bit machines and AE Editor.exe for older one. Use the one appropriate to your computer. User wise there's no difference between them.

When you run the editor it will look like this.



This is the starting point for the AE Editor. There are only five things you can do from this screen.

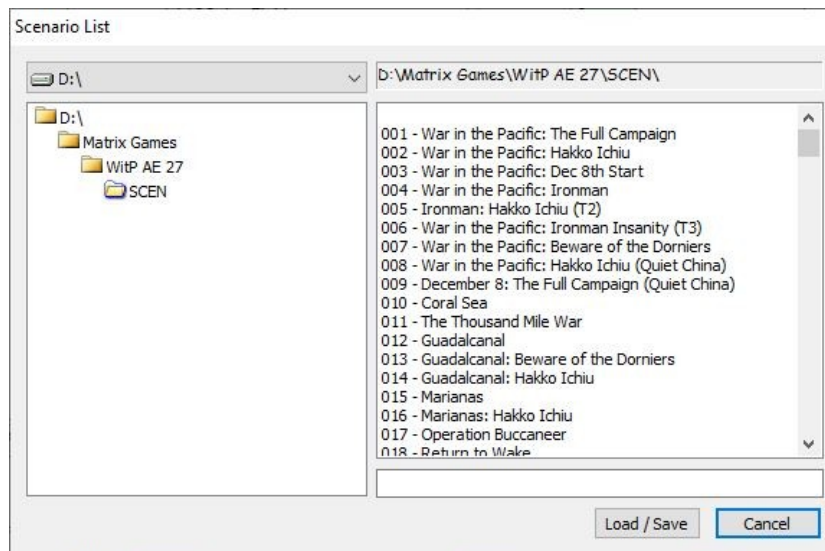
- From the *File* menu you can *Open* an existing scenario or *Exit* the database editor
- From the *View* menu you can toggle the *Toolbar* and *Status Bars* on or off.
- From the *Help* menu display the *About information*.

2.1. The Menu Bar

2.1.1. The File Menu

2.1.1.1. Opening a Scenario

When you select File/Open Scenario a window similar to this will open.

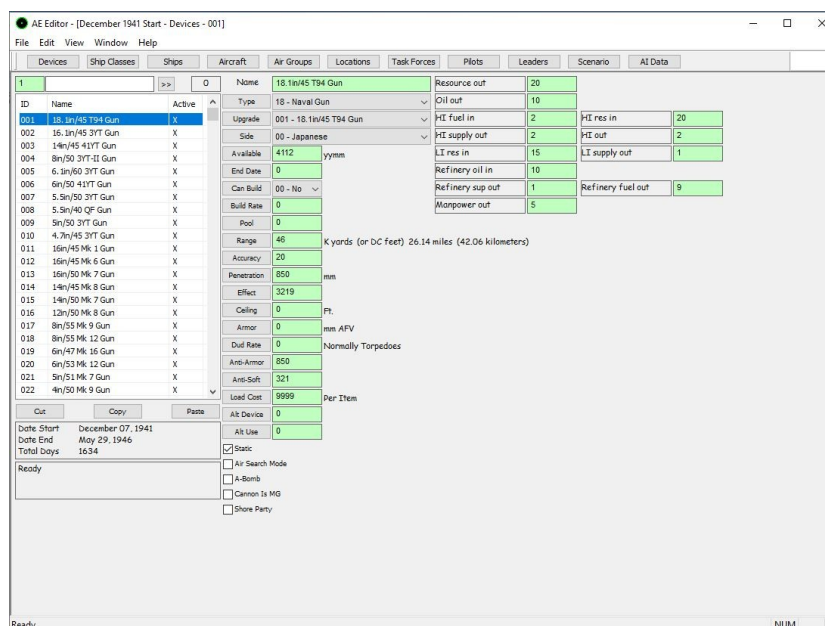


Use the left hand side to navigate to where the scenarios are located. On the right is a list of all the scenarios in that location. You need to scroll down to view them all. Select the one you want to open then click *load*.

Note: it doesn't matter where the AE Editor is located, the location of the scenarios will always be the one you have selected here. E.g. I have two copies of WitP AE installed, one located in D:\Matrix Games\WitP AE 27\Scenario the other in 'D:\Matrix Games\War in the Pacific AE\Scenario'. It matters not which one I run they both point to WitP AE 27/Scen and will remain so until I change either.

Why the two, 27 refers to Beta v27, the other to v26b.

Once the scenario opens the screen will look similar to this, with other menu options and the tabs on the toolbar now being active. It will also tell you what scenario is open in the top left of the window.



2.1.1.2. Exiting the Editor

Selecting *File/Exit* quits the editor. If you have made any changes to the scenario you will be prompted reminding you that you need to save it. If you don't save you lose it.

2.1.1.3. Saving the Scenario

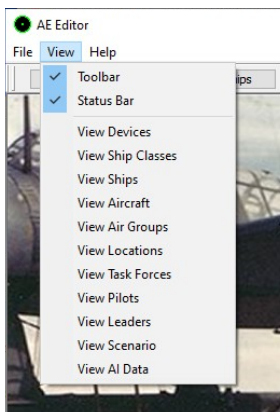
Two ways to save, overwriting the scenario you are currently editing using *Save Scenario* or by creating a new scenario using *Save Scenario As*.

Note: It doesn't matter which version of save you use, you cannot save to any scenario slot located between 1-30 inclusive. These are solely for the official scenarios. Although *Save Scenario As* allows you to save new scenarios there's nothing to prevent the program from overwriting an existing scenario.

2.1.2. The Edit Menu

Contains some of the standard edit commands found in most Windows applications. These include Undo, Cut, Copy and Paste. The problem is they are all greyed out and I can find no use for them, further I can find no info on what they do either in the original Editor manual or in the forum. If any one knows anything please let me know.

2.1.3. The View Menu



Before you open a scenario the *View* menu will look like this. Once you open a scenario all of the *View ** options listed disappear leaving just the *Toolbar* and *Status Bar* option

These *View ** options do nothing anyway.

Note: I'm guessing here but I suspect the original idea was to be able toggle the view of the various elements of the database on and off in this way but the tab system was use instead.

The *Toolbar* can be toggled on and off. This contains the *View Tabs* mentioned above allowing access to the various elements of the database identical to the views listed here.

The *Status Bar* can also be toggled on and off although it contain no information of any use to the editing process other then whether you have the number or caps lock on or off.

2.1.4. The Tools Menu

Only available to some database views allowing broad changes to be made. For example the *Ships* view has a sub-menu item under *Tools* called *Set Ships* that will display a dialog with various search parameters and value selections for changing many ships slots at once. (More on this later when I work out how to do it).

2.1.5. The Windows Menu

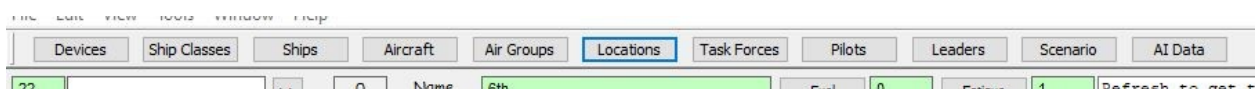
Does nothing.

2.1.6. The Help Menu

Displays 'About Info' that is typically used in many Windows Aps. Of little use as there's only ever been one version of the AE Editor that I know about and that is v 1.0.0.7 dated Jan 17 2010.

2.2. View Tabs

This is where you access the nitty gritty of the editor. Eleven *View Tabs* giving you access to the various database elements.



Each button will bring up a different screen, each with different attributes that can be manipulated. Each screen has a limit to how many items may be added, from 999 Aircraft Types to 29999 Leaders.

From left to right these buttons are:

Note: Each of the following tabs are described in more detail in later sections.

Devices are the infantry squads, weapon tubes, mounts, and deliverable munitions that can be placed on ships, aircraft, artillery, and ground units.

Ship Classes define a group of ships of similar design from which individual ships are patterned. While some ships are one of a kind, like the Akagi, others can have many in a class like the Fletcher class DDs. A ship's class must be defined before an individual vessel may be created.

Ships are individual vessels used in the game, from huge ships like the Yamato to small inshore motor boats. Each ship is based a ship class. While a class must be decided on, each ship within a class can be modified to suit the player's needs.

Aircraft are the many flying machines involved in the game.

Air Groups are the organizational structures within which a number of planes may be ordered. It is the Air Group you give orders too and not the individual aircraft although an AG can consist of 1 aircraft.

Locations define the individual locations (bases) on the map as well as the ground units in the game. Also, the locations includes the standard Tables of Organisation & Equipment (TO&E) used by ground units in the game.

Task Forces are a group of ships combined into a single element for specific purposes. E.g. Carrier combat, supply transport etc. It is the TF you give orders too and not the individual ships although a TF can consist of 1 ship.

Pilots are notable individuals who flew aircraft during WW2. They all tend to have better experience than the regular rank and file pilots created in game.

Leaders are individuals that command ships, air groups, ground units and task forces. Again, like pilots they are all historical figures, but unlike pilots only a few lower ranking leaders can be created in game.

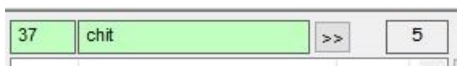
Scenario holds the global parameters used in the scenario.

AI Data holds up to 999 modules used by the AI for either side. These are often referred to as scripts.

2.3. Common Features

Some controls are common to all or some views.

2.3.1. Search Bar

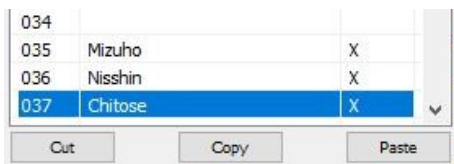


Two simple ways to find something in the viewed database.

By ID number, 37 here or a name alphanumerical. Here I'm searching for all references to 'chit' in the Ship view, specifically CS Chitose. Capital

letters are ignored. The number on the right tells you how many were found while the >> button steps through them. In this case there's 5.

2.3.2. Simple Editing Bar

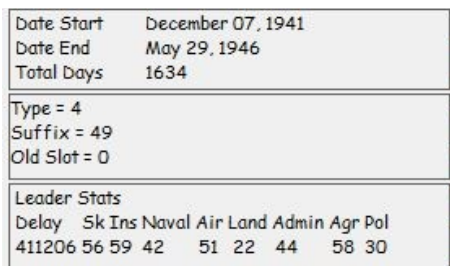


Basic commands that let you *Cut*, *Copy* and *Paste* slot entries

Pretty self-explanatory. Here I could copy and paste slot 37, Chitose to any of other slot. Anything that is in a slot when you paste is overwritten.

When you cut an entry all existing data for that slot is cleared, set to zero. Cut entries can also be pasted.

2.3.3. Info Panel

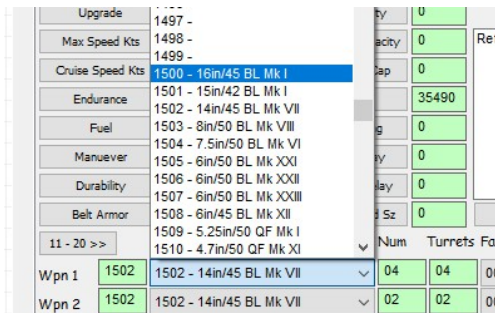


Top info panel displays start and end date of scenario as well as total days.

Middle panel displays view info messages.

Bottom panel displays leader stats for currently select unit if available.

2.3.4. Selection Boxes



The editor uses a system of drop down boxes that lists all relevant data for that box.

To access the drop down list click the small down arrow on the right side of the name box. Find the item you want by scrolling through the list and select it. This immediately populates the name box with the selection and allocates its ID # into the associated ID box.

In this instance a 16in/45 BL Mk I device (a big gun) has been selected. Clicking it will enter its name in the highlight name box and change ID box to the device #, 1500.

However a far better and quick way to select something is to enter an ID number into the ID box. This will populate the name box immediately and require no scrolling through lists.

2.3.5. Date Formats

The conventional format for dates used in the game is a 6 digit number where the first two digits represent the year, the middle two the month, and the last two the day (e.g. 420405 is April 5, 1942 so the ship for instance would be available at the end of the April 5 1942 turn). If the value is 0, or a date before the beginning of the scenario, then the ship will begin the game on the map. If the number is 9999, the ship will not appear in the scenario.

If the delay is set to the start date of the scenario, the ship will appear at the end of the first turn, not at the start of the game.

If recently found out that some date fields will also accept relative dates, counted from scenario start date. This relative date is the number of day until the event, (something arrives etc). For instance entering 100 into a ship **Delay** field would result in the ship entering 100 days after the scenario start date.

I've not test them all, but Delay fields seem to work but withdrawal field don't, or at least the ones I've tested didn't

3. View Functions

3.1. Devices View

Not evident from it's name but the *Devices View* tab controls two sets of data. Japanese Industrial Cost and Devices.

3.1.1 Japanese Industrial Costs

The far right of the *Device* screen displays the Japanese industrial costs for their factory based production system. All these figure are daily amounts.

Resources out is the amount of resources produced by a single Resource Centre.

Oil Out is the amount of oil produced by a single Oil Centre.

HI fuel in is the amount of fuel required for a single HI Centre to produce supply and HI Points.

HI res in is the amount of resources required for a single HI Centre to produce supply and HI Points.

HI supply out is the amount of supply produced by single HI Centre.

HI out is the amount of HI produced by single HI Centre.

Lt res in is the amount of resources required by a single LI Centre to produce supply.

LI supply out is the amount of supply produced by a single LI Centre.

Refinery oil in is the amount of oil required for a single Oil Refinery to produce fuel.

Refinery sup out is the amount of supply produced by a single Oil Refinery.

Refinery fuel out is the amount of fuel produced by a single Oil Refinery.

Manpower out is the amount of manpower generated by a single Manpower Centre.

Resource out	20		
Oil out	10		
HI fuel in	2	HI res in	20
HI supply out	2	HI out	2
LI res in	15	LI supply out	1
Refinery oil in	10		
Refinery sup out	1	Refinery fuel out	9
Manpower out	5		

3.1.2. Device Attributes

Each weapon is known in AE as a 'device.' Devices can be of many different types, running from a Vickers MG to an 18-inch naval gun, or bombs, torpedoes, drop tanks, squads, vehicles, and a number of other items such as factories, oil centres etc. Essentially, anything that projects power into combat (a euphemism for 'shoots' or 'can be shot at') or produces something is a device.

ID	Name	Active
001	18. 1in/45 T94 Gun	X
002	16. 1in/45 3YT Gun	X
003	14in/45 41YT Gun	X
004	8in/50 3YT-II Gun	X
005	6.1in/60 3YT Gun	X
006	6in/50 41YT Gun	X
007	5.5in/50 3YT Gun	X
008	5.5in/40 QF Gun	X
009	5in/50 3YT Gun	X
010	4.7in/45 3YT Gun	X
011	16in/45 Mk 1 Gun	X
012	16in/45 Mk 6 Gun	X
013	16in/50 Mk 7 Gun	X
014	14in/45 Mk 8 Gun	X
015	14in/50 Mk 7 Gun	X

On the left side of the *Devices* screen is a list of every pre-defined device existing in the current scenario. There is a limit of 999 devices that may be defined, but you will find that only about half them are used.

Ship Classes, Ships, Aircraft, Air Groups, and Locations can all employ a device, up to 20 each in all cases through their *Weapon Slots* identified by **Wpn #**.

Common sense should dictate what type of device would be appropriate to what type of unit. You wouldn't put an 8.1 inch naval guns on an aircraft but it could go on *Classes, Ship* or some locations. Likewise, attaching a factory to a ship is not logical Mr Spock. Use existing scenarios as a guide but there's nothing I can see to stop you doing anything crazy. Not entirely sure what would happen if you did.

The remainder of the *Devices* screen displays the data for the device selected on the left hand side.

Name	18.1in/45 T94 Gun	Resource out	20	
Type	18 - Naval Gun	Oil out	10	
Upgrade	001 - 18.1in/45 T94 Gun	HI fuel in	2	HI res in 20
Side	00 - Japanese	HI supply out	2	HI out 2
Available	4112 yy/mm	LI res in	15	LI supply out 1
End Date	0	Refinery oil in	10	
Can Build	00 - No	Refinery sup out	1	Refinery fuel out 9
Build Rate	0	Manpower out	5	
Pool	0			
Range	46 K yards (or DC feet) 26.14 miles (42.06 kilometers)			
Accuracy	20			
Penetration	850 mm			
Effect	3219			
Ceiling	0 Ft.			
Armor	0 mm AFV			
Dud Rate	0 Normally Torpedoes			
Anti-Armor	850			
Anti-Soft	321			
Load Cost	9999 Per Item			
Alt Device	0			
Alt Use	0			
☒ Static ☐ Air Search Mode ☐ A-Bomb ☐ Cannon Is MG ☐ Shore Party				

Name is the nomenclature for the device. The limit is 20 characters.

Type is the device type (naval gun, torpedo, vehicle, factory etc.). The game use a Device's **Type** to determine how it can be used. Here are some examples of the complexity of the how the game use a device based on it's **Type**.

- The only difference between a naval gun and an army gun is that units with naval guns are more likely to be targeted by bombardments.
- Dual purpose guns are treated as naval guns for targeting purposes as they have the ability to fire at aircraft as well.
- Some army weapons, however, may fire at ships based on their range.
- Locations with a factory will build something.
- Units with vehicles have an increased movement rate.

Upgrade is an improved version of the current device. Any unit using the current device will automatically upgrade to the improved version on it's available date provided upgrades are turned on and certain other conditions are met.

If there is no upgrade available either a 0 or it's current ID number are used. The preference seems to be it's current ID number.

Side determines who can use it, Japanese, Allied or both.

Available is the date when the device is first available. This is a 4 digit number where the first two digits represent the year and the last two the month (i.e. 4204 is April 1942, so the device would be available April 1 1942). When a device becomes available, it may be built by a factory or enter the game via the device's build rate. If the date is set to 9999 then the device is not used in the scenario.

End Date is when the device is no longer available to built or produce. Existing can still be used.

Can Build determines if the device can be produced during a scenario. It does not determine if a device is in the scenario. That is determine by the available date.

Build Rate is the average monthly replacement rate for the device using the production system. Once the device reaches it's Availability Date, a number equal to the Build Rate/30 will be placed in the device pool (fractional values have a chance of being rounded up) each day. With a few rare exception **Build Rate** is only applicable to the Allies as the Japanese mostly get their replacements through the factory system.

Pool is the number of this device that start in the device pool at the beginning of the scenario. These are available to be used as replacements immediately.

Range is the effective range of the device in thousands of yards.

Accuracy is the device's accuracy.

Penetration is the maximum armor in millimetres that the weapon can penetrate.

Note: Some radars have a penetration value. This apparently does nothing in WitP AE it is a left over from WitP.

Effect determines the amount of damage the weapon will cause (generally based on the weight of the warhead). This number also determines the rearm cost at sea (from AE) and the consumption of operating points.

Ceiling is the maximum altitude that the weapon will fire too (used for targeting aircraft).

Armor is the width of the armor in millimetres that protects the device (used for AFVs).

Dud Rate is the percentage chance that the weapon will not explode when it hits the target. Almost exclusive to torpedoes.

Anti-Armor is the basic combat ability of the device against armored ground targets.

Anti-Soft is the basic combat ability of the device against non-armored ground targets.

Load Cost is the basic cost of loading one item of this device onto a ship or aircraft. Any device with a load cost >9 cannot be transported by air. Also, non-squad devices >7 cannot be air dropped. In both case they are deemed to be too large for the aircraft.

If the load cost is 9999 or it is designated as static, any ground unit containing this device will also be static (not allowed to move except for retreat in some situation).

Note: Load costs also play a major role in determining an aircraft's max bomb load. Although the editor will let the game prevents overloading aircraft but you can generally up the comb load for most aircraft. For instance the B-17d max load is 6800 therefore you could put any combination of bombs on it that did not exceed this figure. E.g. 17 x 500lb bombs and not the eight as set by the official scenarios. I'm not saying you should, just you can.

Alt Device allows the use of an alternative device when attacking certain targets. Normally only applicable to bombs. For instance bombing a heavily armored ship would require a more effective AP bomb than an aircraft's normal load out of a GP bomb.

Alt Use is what determine when an Alt Device is used. Can I only find two codes in the game, 4 for SAP use and 40 for GP use. There maybe other but I know not what.

Static are devices that once placed can not be moved. A static device allocated to a unit also makes that unit static.

Air Search Mode are radar devices that can be used to search for aircraft.

A-Bomb attribute can be used in atomic attacks. This is only applicable to the Allies.

Cannon Is MG I'm uncertain as to what this does. Looking at the devices in the official scenarios, all those with it set are typical MGs that give rapid defensive fire so it might have something to do with how often the weapon fires in a combat round?

Shore Party provides a faster unloading/loading function. Useful in small ports but I don't know if it has any affect in larger ones? I can't find any devices that use this function in any official scenario but I believe they are in unofficial scenarios do like DaBigBabes.

3.1.2.1. Device Restrictions

Important: Certain devices must be left in their assigned slots as follows:

- Industry items need to remain in ID slots 518-528.
- Support squads need to remain in ID slots 250 – 255.

These devices can be altered, but they should never be moved.

3.2. Ship Classes View

Ship Classes in AE defines a group of ships of similar design from which individual ships are patterned. They are broken down by into nationalities, IJN, USN, British etc, and further divided by type, CV, BB, AK etc.

1		>>	0
ID	Name	Active	
001	King George V	X	
002	King George V	X	
003	King George V	X	
004	King George V	X	
005	King George V	X	
006	Nelson	X	
007	Queen Elizabeth	X	
008	Queen Elizabeth	X	
009	Queen Elizabeth	X	
010	Queen Elizabeth	X	
011	Vanguard	X	
012	Repulse	X	
013	Repulse	X	
014	Renown	X	
015	Renown	X	
016	Royal Sovereign	X	
017	Royal Sovereign	X	
018	Kent	X	
019	Kent	X	
020	Kent	X	
021	Australia	X	
022	Australia	X	

Cut Copy Paste

Each class is identified by an ID number and a name and represent all ship class that were employed in the Pacific theatre of World War II.

To modify a *Ship Class*. select one from the left hand list. To create a new *Ship Class* select an empty number slot however the easiest way to create a new one is to *copy* and *paste* an existing one closest to your needs, then edit it.

Use the *Search Bar* to find and navigate through the list. Once a Ship's Class is selected the right hand side of the Classes screen will be populated with it's data. Blank if new.

3.2.1. Ship Class General Attributes

The right hand side is split into two halves. The top half displays the **General Attributes** of each Ship Class, while the bottom displays the **Weaponry** allocated to the Class.

Name	King George V	Browse	D:\Matrix Games\WitP AE 27\ART	☒ View Back
Type	05 - BB (Battleship)			☒ View Silhouettes
Nationality	09 - British			
Bitmap	183	Deck Armor	159	
Month	12	Tower Armor	108	
Year	41	Aircraft Capacity	2	
Upgrade	2 << >>	Troop Capacity	0	
Max Speed Kts	28	Bulk Cargo Capacity	0	
Cruise Speed Kts	15	Liquid Cargo Cap	0	
Endurance	7400	Tonnage	35490	
Fuel	3850	Upgrade Dmg	0	
Manuever	25	Upgrade Delay	0	
Durability	142	Conversion Delay	0	
Belt Armor	360	Upgrd Shipyard Sz	0	

Refresh to get values

Refresh Convert To/From Binds

Enter a value to Bind Classes

☐ Convert From Class 0

☐ Convert To Class

☐ Launch Midget Subs

Name is the nomenclature for the device. The limit is 20 characters.

Type defines the main purpose of the ship. (e.g. CV, BB, xAK).

Nationality of the ship.

Bit Map is the number of the art file that is used for this ship class. If you create a new class then a new bit file is needed.

Month is the first month that the ship class is available to be in the game (this is 2 digits, e.g. 03= March).

Year is the first year that the ship class is available to be in the game (this is 2 digits, e.g. 42 =1942).

Upgrade is the ID number of the ship class that the current ship class will upgrade to (assuming the new ship type is available). Each class of ship can have numerous upgrades, known as it's upgrade path. The << and >> buttons allow you to step through this path. You can break the path by setting any one of the linked upgrades to it's own ID number.

If set to 0, the unit will follow the normal path for that type. If the number is the same as its current ID then no upgrade will take place. If any other number is entered, the device will use that number as its first Upgrade, then will follow the normal path thereafter.

Max Speed Kts is the maximum speed in knots for this class of ship.

Cruise Speed Kts is the cruising speed in Kts for this class of Ship. This is the normal speed at which the ship travels to remain fuel-efficient.

Endurance is the number of miles the ship can travel at cruise speed before it expends all of its fuel.

Fuel the maximum number of tons of fuel carried by the ship.

Manoeuvre represents the ship's ability to avoid bombs and torpedoes, and is related to the size and speed of the ship; the longer it is, the harder it is for the ship to avoid these attacks; the faster it is, the easier.

Durability represents the size and toughness of the ship in terms of how difficult it is to sink. For submarines, this also represents the maximum dive depth of the submarine (in tens of feet, i.e. 30 represents a 300 feet max dive depth).

Belt Armor is the maximum thickness in millimetres of the ship's armored belt (if it has one).

Deck Armor is the maximum thickness in millimetres of the ship's armored deck (if it has one).

Tower Armor is the maximum thickness in millimetres of the ship's armored conning tower (if it has one).

Aircraft Capacity determines how many aircraft the ship can carry and operate the aircraft at full effectiveness.

Troop Capacity determines its maximum passenger load. E.g. Ground units.

Important: Remember from *Devices* that each device has a **load cost**. Just because a ship has a Troop Capacity of say, 430, that does not mean you can get 430 ground units on it. However as one infantry squad is equal to 1 for load cost purposes you could load 430 squads onto a ship.

Bulk Cargo Capacity is how many tons of dry cargo the ship can carry. Cargo here is referring to resources or supply each of which costs 1 for load cost purposes.

Note: The rules for loading ships is fairly complicated. The cost of loading dry cargo is straightforward but you can also load dry cargo space with ground units, specifically heavy equipment. Equipment loaded like this has to take into account their load cost which is higher than normal. Further, ships can be employed in various ways, such as amphibious ops. Ships loaded in any fashion other than their main purpose also have load restrictions placed on them.

You don't have to worry about these rules as the game does it for you but you need to know they exist before you start editing. Therefore you are strongly advised to read the main manual for an insight into all these load restrictions.

Liquid Capacity is how many tons of liquid cargo the ship can carry. Cargo here is referring to oil or fuel each of which costs 1 for load cost purposes. Fuel can also be carried in cargo holds but with an increased load cost. This represents the use of barrels.

Tonnage is a number based on the displacement of the ship class.

Upgrade Damage is the amount of service damage the ship will receive during an upgrade.

Upgrade Delay is the minimum number of days the ship will be unavailable during an upgrade.

Conversion Delay is the minimum number of days the ship will be unavailable during a conversion. A conversion is a change of purpose (e.g. CS to CV) for a ship, whereas an upgrade is a change of equipment.

Upgrade Shipyard Size is the minimum size of shipyard required to perform the an upgrade or conversion.

Browse along with the two tick boxes adjacent allows you to view the art work for the class of ship. Just browse to the Art folder and tick the boxes.

Refresh Convert To/From binds allows you to see all Bind Grouping. See below.

Bind Class Value is a Bind grouping number (###) that allows multiple classes to be bound together for conversion purposes. Only Classes grouped by a Bind number may convert, and only between other Classes having the same Bind number. Each bind group of classes having a conversion option must have a unique Bind Class Value.

Bind Info Box displays all the current bind set up for the current scenario. They are not displayed in numerical order so you'll have to scroll through

You will need to **Refresh Convert to/Form Binds** for an up-to-date list.

Convert From Class. Within each Bind group, checking the Convert From box identifies that Class as being able to convert to something else, within the same Bind group.

Convert To Class. Within each Bind group, checking the Convert To box identifies those Classes that a vessel may convert to. Only vessels with the Convert From box checked may convert to vessels with the Convert To box checked, and only if they are in the same Bind group.

Launch Midget Subs specifies that this class can launch and recover midget subs.

3.2.2. Ship Classes Weaponry

11 - 20 >>				Num	Turrets Facing	Ammo	Armor
Wpn 1	1502	1502 - 14in/45 BL Mk VII	04	04	00 - Front	12	312
Wpn 2	1502	1502 - 14in/45 BL Mk VII	04	02	00 - Front	12	312
Wpn 3	1502	1502 - 14in/45 BL Mk VII	04	04	02 - Rear	12	312
Wpn 4	1509	1509 - 5.25in/50 QF Mk I	08	02	03 - Right Side	24	05
Wpn 5	1509	1509 - 5.25in/50 QF Mk I	08	02	04 - Left Side	24	05
Wpn 6	1535	1535 - 2pdr HA Mk VIII	08	08	00 - Front	36	00
Wpn 7	1535	1535 - 2pdr HA Mk VIII	16	08	03 - Right Side	36	00
Wpn 8	1535	1535 - 2pdr HA Mk VIII	16	08	04 - Left Side	36	00
Wpn 9	1535	1535 - 2pdr HA Mk VIII	04	04	02 - Rear	36	00
Wpn 10	1539	1539 - 40mm Bofors AA Gun	01	01	05 - All Sides	36	00

The button in the top left side toggles between the first ten weapon slots, **Wpn 1 through Wpn 10**, and those labelled **Wpn 11 through Wpn 20**. These allows for up to 20 weapons systems to be allocated to each class. All weapon slots are identical. From left to right:

Device ID is the ID number of the device you want to use. Entering a number here automatically populates the name box. A 0 means there is no weapon in this slot.

Device Name is the nomenclature for the device. Select it using the method explained in section 2.3.4. *Selection Boxes*. Selecting none in the name box means there is no weapon in this slot.

Number is the total number of barrels of that weapon device facing in a specific direction and mount type.

Turret represents the number of barrels (or torpedoes) grouped together in a mount that can shoot or me damaged as one. Dividing number/turret gives you the number of mounts of that type. In the above example **Wpn 1** has 4 barrels fitted into a single mount. **Wpn 2** has got 4 barrels but fitted into 2 mounts. Both face forward.

Facing is the direction the guns are facing, hence the direction of fire. This is a drop down list. The fields of fire are

F – Front
C – Center
R – Rear
RS – Right Side
LS – Left Side
A – All Sides

Ammo indicates the standard amount of ammunition allocated to the weapons system (all guns) in terms of the number of combat rounds the weapon may fire. For AA weapons and dual-purpose guns, the amount of ammo in the database for each ship is multiplied by 1.4 when the game begins.

Armor is the maximum thickness in millimetres of the mount if any. As a general rule, turreted devices have armor protection, but armor protection is not necessary for all devices.

3.2.3. Weapon Restrictions

Device 196, Torpedo Ordnance, needs to be added to the 19th weapons slot on all Aircraft Carrier-types that support torpedo planes. This devices determine if the ship can carry torpedoes, hence carry out torpedo sorties. How many torpedo sorties it can be carry out is determined by the amount entered into the **Armor** field for both the *Class* and the individual *Ship* (yes **Armor**, not Ammo).

Note: Torpedo Ordnance restriction also applies to any HQ, Base Force (or any ground unit for that matter) although their use in them is not common. The game manual implies that, with enough supply, Command HQ automatically provided torpedo support. I have found no evidence of this in scenario #1.

Device 195, Aircraft Ordinance, needs to be added to the 20th (the last) weapons slot on all Aircraft Carrier-types. This determines the max number of sorties that can be carried out from the ship. This excludes torpedo sorties, that's controlled by the Torpedo Ordinance above.

Device 254, Aviation Support, needs to be added to the 19th weapons slot on Seaplane Tender-type (AV) vessels. This determines if seaplanes can be supported by the ship. The number of seaplanes in can support is entered into the **Armor** field for both *Class* and *Ship*. This is in addition to the normal aircraft compliment. E.g. If an AV has a FP aircraft of 9, then putting 12 in the **Armor** field would mean it can support $9+12 = 21$ FP.

3.3. Ships View

Ships in AE are the individual vessels that were used in the Pacific war. Each ship is identified by an ID number and name. A **Ship Class** (3.2) must be defined before a specific, individual **Ship** can be created. There can be up to 19,999 total ships in a scenario.

1		>>	1
ID	Name	Active	
001	Kaga	X	
002	Kaga	X	
003	Hiryu	X	
004	Soryu	X	
005	Shokaku	X	
006	Zuikaku	X	
007	Junyo	X	
008	Hiyo	X	
009	Taiho	X	
010	Shinano	X	
011	Unryu	X	
012	Amagi	X	
013	Katsuragi	X	
014	Kasagi	X	
015	Aso	X	
016	Ikoma	X	
017	Akagi	X	
018	Ryujo	X	
019	Shoho	X	
020	Zuiho	X	
021	Ryuho	X	
022	Hosho	X	
Cut Copy Paste			

When the **Ships View** tab is selected, each individual ship associated with the given scenario is listed on the left side of the **Ships** screen. You can use the *Search Bar* to find and navigate through the list.

Once a ship is selected from the list the right hand side of the **Ships** screen is populated with it's data. You can modify this data.

You can also use the Edit Bar to *cut*, *copy* and *paste* an existing ships in order to create a new ship.

When creating a ship from scratch the first step is to assign a **Ship Class** in order to give it a 'design base' from which it can be further manipulated. The attributes used by the **Class** are translate over to the ship itself however these attributes are mostly hidden from view and cannot be changed at the **ship** level. You can change the ship's weaponry and it's current fuel.

3.3.1. Ships General Attributes

Name	Kaga		486 - Kaga-1	18 - A6M2 Zero
>>			487 - Kaga-2	27 - D3A1 Val
Ship Class	1811	1811 - Kaga	488 - Kaga-3	27 - B5N2 Kate
<<	>>	Cur CV 12/41 Next(1812) 7/42		
Nationality	02 - IJ Navy		Refresh A/C	
Primary HQ	16	016 - Combined Fleet		
Captain	4956	Okada, Jisaku	BL	Air Capacity 72
Location	8001	8001 - Kido Butai (*)		Troop Capacity 0
Delay	411206	☐ Base ☒ Task Force		Bulk Cargo Capacity 0
Sunk	420604	Return Delay 0		Liquid Cargo Capacity 0
Withdraw	0	Sys Dmg 0		Tonnage 38200
Exp Day	0	Float Dmg 0		Temp AP Convert 00 - AK Normal
Exp Night	0	Fires 0		Major Float Dmg 0
Fuel	4880	Eng Dmg 0		Repair Mode 00 - Normal
				Major Eng Dmg 0

Ship name is the historical (or player-defined) name of the ship.

Ship Class is the ID class and class name of the current Ship selected. Ship Class information is set in 3.2 above. A Ship Class must be selected for each Ship.

Previous/Next (<</>>) upgrade of the Class. Use this to view the current and futures upgrade dates for the ship. This is extremely useful when it comes to planning when to carry out the upgrades.

Nationality is indicates which side and which organization that the Ship belongs to (e.g. US Navy, IJ Navy, etc.).

Primary HQ is the HQ to which the ship is attached. Usually a fleet HQ but count be a high HQ, like the US SW Pacific. It has no roll in the game but is useful in keeping track of their organisations, such as Home base.

Captain is the leader assigned to command the Ship (see 3.9). The first field displays the leader ID Number, while the second displays his Name. You can only chose a leader via his ID number. The available choices are first limited by nationality then by *leader type* (e.g. what they are capable of commanding).

BL button selects the best leader for the ship. If you don't use this or you don't know the name or ID number of the suitable leader you will have to look through the Leader View Tab to find one. A tedious operation.

Location is the starting point for the ship in the current scenario. An appropriate starting point for a ship is either a base or a Task Force (TF).

Bases are defined in the *Location View* (see 3.6) and have an ID number between 217-1999 inclusive. Although TFs are also locations they are defined separately using the *Task Forces View* (see 3.7) and have an ID between 8000-8499 inclusive. Enter the ID directly or use the drop down list to make your selection (2.3.4).

As well as this you must also select **Base** or **Task Force** using one of the two radial buttons below.

Notes: These radial buttons are important. Failure to apply the correct one for the location set above will result in the ship NOT appearing in the game correctly.

Delay the 6 digit arrival date of the ship. Alternately the number of days until its arrival may be used.

Sunk is the date the ship was historically sunk (this is the standard 6 digits date used throughout the editor). A ship with a sunk date prior to the start date of the scenario will not be included in the scenario.

Withdraw is the 6 digit date the ship must be withdrawn. There is a Political Points (PPs) penalty for not withdrawing on time.

Return Delay is the 6 digit date the ship will return to game.

Exp Day indicates the crew's experience in day combat. This should be between 0 and 99. If a 0 is entered, the ship will assume the standard experience for a ship given the nationality and time of arrival. (see 3.3.11 below on experience ratings).

Exp Night indicates the crew's experience in night combat. This should be between 0 and 99. If a 0 is entered, the ship will assume the standard experience for a ship given the nationality and time of arrival. (see 3.3.11 below on experience ratings).

Fuel is the starting load of fuel for the ship in the current scenario. Other than weaponry, this is the on *Ship Classes* attribute that can be changed in the *Ships* screen.

Temp AP Convert some Japanese ships can be converted 1/3 of their cargo space to carry troops. They can be converted back at anytime.

System Damage is the starting amount of system damage the ship has at the start of the current Scenario (0 is undamaged).

Float Damage indicates the level of flooding the ship is experiencing at the start of the current scenario (0 means no flooding). This type of damage can be fixed without resorting to expertise (e.g. by the crew or docked).

Major Float Damage indicates major flooding the ship is experiencing at the start of the current scenario (0 means no flooding). This type of damage requires expertise to fix, typically by a repair yard although smaller ships may be repaired in port or by repair ships.

Fires is the starting fire level the ship has at the start of the current scenario (0 means no fires aboard).

Engine Damage is the starting amount of engine damage the ship has at the start of the current Scenario (0 is undamaged). This type of damage can be fixed without resorting to expertise (e.g. by the crew or docked).

Major Engine Damage is the starting amount of major engine damage the ship has at the start of the current scenario (0 is undamaged). This type of damage requires expertise to fix, typically by a repair yard although smaller ships may be repaired in port or by repair ships.

Repair Mode. As indicated above some repairs require expertise to fix. This normally entails taking the ship 'out of service' until fixed. This **Repair Mode** does that.

Group Name box in the top right corner displays the *Air Groups* currently attached to the current ship and the number and type of aircraft in that Group. This number cannot be changed at this level, but can under the *Air Groups View* (see 3.5). No more than 5 air groups can be placed on any one ship. If it's empty either there are no Air Groups on the ship or you need **Refresh A/C** to repopulate the box.

Ship Capacities The box directly under details the various carrying capacities of the ship. These include Air, Troop, Bulk Cargo and Liquid Cargo. It also displays the ship's Tonnage.

3.3.1.1. A Note on Experience (Exp Night and Exp Day Ratings)

Ships given a zero (0) in either Exp Night or Exp Day will have that Experience rating set from a table.

- Japanese and British Exp Day ratings will be the table value plus a random number from 0-10.
- For all other Allied ships Exp Day ratings will be 4/5 of the table value in 1941 and 1942, and the table value in 1943 and beyond, plus a random number from 0-10.
- Japanese Exp Night ratings will be the table value plus a random number from 0-5.
- Allied Exp Night ratings for Submarines and PT Boats will be the table value plus a random number from 0-10.
- For all other Allied ship Exp Night ratings, the rating will be a percentage of the table value plus a random number from 0-10. The percentage increases year by year.

The Ship Types and their values are as follows:

		APD	40	AG	15	LCI(G)	15
CV	60	SS	50	AK	10	LCI(M)	15
CVL	60	ML	40	LSD	15	LCI(R)	15
CVE	45	MSW	30	LST	12	LCS(L)	15
BB	65	AV	15	SC	30	AVD	20
BC	65	DM	50	LCI	15	AS	12
CA	65	DMS	50	TK	10	AD	12
CL	65	AO	10	LCM	15	AR	12
CLAA	60	AP	10	LCVP	15	AGC	12
CS	60	PC	40	LSV	15	AE	15
DD	65	PG	40	LSM	15	AGP	15
DE	50	PT	40	LSM(R)	15	LCT	15

3.3.2. Ships Weaponry

You can modify the weaponry carried by a ship to something other than that allocated to the **Ship's Class**.

11 - 20 >>		Num	Dmg	Turrets	Facing	Ammo	Armor
Wpn 1	1674 1674 - 12.7cm/40 T89 AA	6	0	2	04 - Left Side	22	0
Wpn 2	1674 1674 - 12.7cm/40 T89 AA	6	0	3	03 - Right Side	22	0

The attributes and process are very similar to a *Ship Classes Weaponry* (see 3.2.1) with the exception of an extra **Damage** attribute for each **Wpn #** slot. All the restrictions placed on *Ship Classes Weaponry* also applies here.

Dmg is the number of barrels disabled at the beginning of the current scenario however it is important that all the barrels in a mount are disabled as it is the mount that fires, not the individual barrels. For this to happen the **Dmg** column must be divisible by the **Turret** column. In the above image for **Wpn 1** placing, 2,4 or 6 in the **Dmg** box is OK. Placing a 3 is not. For **Wpn 2** a 3 is OK as each mount consists of 3 barrels.

All damage mounts must be repaired during the game in order for them to function.

3.3.3. Ships Total Boxes

The last thing on the *Ships View* screen are the two info boxes on the far right, one for each side. These just contain the number of ships by type that the side has. You will need to **Refresh Total** for an up-to-date count.

3.4. Aircraft View

All aircraft types (e.g. Zero, Tomahawk) may have their values manipulated for the current scenario here, or new aircraft may be created. The basic concepts of editing are identical to those gone before except the data is now aircraft type.

1		>>	0
ID	Name	Active	^
001	CAF*****	X	
002	A-29A Hudson	X	
003	B-24M Liberator	X	
004	B-25D Mitchell	X	
005	DB-3M	X	
006	DC-2	X	
007	DC-3	X	
008	C-46A Commando	X	
009	F-5E Lightning	X	
010	I-16-III	X	
011	I-15-III	X	
012	H81-A3	X	
013	Hawk 75M	X	
014	P-40E Warhawk	X	
015	P-40N Warhawk	X	
016	P-43A-1 Lancer	X	
017	P-66 Vanguard	X	
018	P-51D Mustang	X	
019	SB-III	X	
020	FAA*****		
021	Swordfish II	X	
022	Albacore I	X	▼

Cut

Copy

Paste

When the **Aircraft View** tab is selected, each aircraft type associated with the given scenario is listed on the left side of the **Aircraft** screen. You can use the *Search Bar* to find and navigate through the list.

Each ID number identifies a slot that an **Aircraft** is assigned to. Selecting an Aircraft from this list to populates the right hand side of the Aircraft screen with it's data. You can modify this data.

You can also use the Edit Bar to *cut*, *copy* and *paste* an existing ships in order to create a new **Aircraft**.

3.4.1. Aircraft General Attributes

Name	A-29A Hudson		Browse	D:\Matrix Games\WitP AE 27\ART		☒ View Art
Type	04 - Level Bomber				☒ View Side	
Side	01 - Allied	12 - Chinese			☒ View Top	
Upgrade	002 - A-29A Hudson				☒ View Mask	
Bitmap	1	Armor	1			
Month	7	End Month	8			
Year	42	End Year	42			
Max Speed	253	Max Load	1400			
Cru Speed	205	Build Rate	11			
Endurance	685	Pool	0			
Maneuver	16	Low (< 10K)	0	☐ Heavy Bomber		
Climb	1590	Serv Rating	(5-15) Days	☒ Medium Bomber		
Max Alt	26500	Crew	2	☐ Light Bomber Capable		
Durability	32			☐ Amphibian		
11 - 20 >>				☐ Attack Bomber		
				☐ DT Ordnance		
				☐ Carrier Capable		
				☐ Float Capable		
				Filter		
				Rng Max 1990		
				Rng Ext 1100		
				Rng Normal 880		
				Rng Max DT 0		
				Rng Ext DT 0		
				Rng Normal DT 0		
				Date DT Active 0		

Aircraft name is the aircraft's service designation and name.

Type is the aircraft type. Select a Type from the drop down menu (e.g. fighter, level bomber, etc.).

Side defines who can use the aircraft, Allied or Axis further sub-divided by nationality. If the aircraft is used by more than one nation there will be two entries. There may be subtle differences between them however.

Upgrade is an improved version of it's current aircraft type that the current aircraft will may change over to (assuming the new aircraft type is available by date). If set to 0 or to itself there is not upgrade available. If any other number is entered, the device will use that as its first upgrade in a possible chain of upgrades. The chain is only halted when the now, current aircraft has 0 or more likely, it's own ID as an upgrade.

Very Important Note: Aircraft currently in play are **never** upgraded. It is the factory producing the aircraft that is upgraded. For this reason upgrades mainly affect the Japanese although there are a few Allied upgrades.

Bit Map is the number of the art file that is used for this aircraft type.

First Month is the first month that the aircraft type is available to be in the game (2 digits, 03 = March).

First Year is the first year that the aircraft type is available to be in the game (2 digits, 42 = 1942).

Max Speed is the maximum speed (in mph) of this Aircraft type.

Cruise Speed is the normal (cruising) speed (in mph) of this Aircraft type.

Endurance This is the number of minutes the plane can fly before running out of fuel.

Manoeuvre is the ability of the aircraft to evade another aircraft in air-to-air combat. For many aircraft this value is never changes but for aircraft designed (F, FB, FP, FF) to engage other aircraft in the air it does and there are five possible bands: Low (<10K), Medium (10-15K), M-high (16-20K), High (21-30K) and V. High (>=31K).

You can find these bands immediately to the right of **Manoeuvre**. Initially it says Low (<10K), the best manoeuvrability. You can change the other four bands but the general rule is the high it flies the worse the manoeuvrability.

Climb Rate is the number of feet this aircraft type can climb per minute

Max Altitude is the maximum height to which this aircraft type may climb (it's ceiling).

Durability the ability of the aircraft to withstand damage and not be destroyed.

Armor represents whether the aircraft had protective armor and/or self-sealing fuel tanks in which case it rates a rating of a 1. A few aircraft warrant a 2 or greater due to special design characteristics.

End Month is the month that the aircraft type is no longer produced (2 digits, 03= March).

End Year is the year that the aircraft type is no longer produced (2 digits, 42 =1942).

Notes: Using the above as an example the aircraft would stop being produced on the 1 March 1942. This mainly affects the Allies and the Japanese AI or small scenarios. In full scenarios the human player has control over production with nothing preventing them from building the aircraft type beyond it's end date.

Max Load is the maximum load that this particular aircraft is capable of carrying. For combat aircraft this is ordinance, for transport aircraft it is cargo load. The Load Cost of ordinance is used and added together when determining what load out the aircraft is capable of carrying.

Build Rate is the average monthly replacement rate for this aircraft type. Once the aircraft reaches it's **Availability Date**, a number equal to the Build Rate/30 will be added to replacement pool (fractional values have a chance of being rounded up). Build rate is only applicable to the Allies or Japan during small scenarios. During full scenarios Japan uses it's factory production system.

Pool is the number of this aircraft type that start in the replacement pool at the beginning of the scenario. These are available to be used as replacements immediately.

Service Rating is the min/max number of days to repair damaged aircraft. The bigger the aircraft the longer it takes based on the number of engines the aircraft type has. When viewed in game the min/max values are translated in to single digits service ratings. In the case of the Hudson above it translates to 2, co-incidentally the number of engines it has.

Crew is the number of pilots! Don't know how this works as aircraft types with two pilots set only have one named pilot in the game. Anyone know?

Attributes (check boxes) further define the mission role and/or capabilities of the aircraft. These are their main effects:

- **Heavy Bomber** can only operate from level 5 AF and above without restriction.
- **Medium Bomber** can only operate from level 4 AF and above without restriction.
- **Attack Bomber** can only operate from level 4 AF and above without restriction plus they can skip bomb.
- **Light Bomber** can only operate from level 2 AF and above without restriction.
- **Carrier Capable** can operate from carriers.
- **Float Capable** can operate from water or ships. They cannot use a runway.
- **Amphibian** can operate from both water and a runway.

- **DT ordnance** allows the use of Drop Tanks but without using a centre line Drop Tank device. If a DT device is fitted to the centre line it replaces any other ordnance fitted to it. You can use DT ordnance to overcome this problem. I can find no aircraft that use DT ordnance and believe it is not long used but it does work.

Browse along with the four ticky boxes adjacent allows you to view the art work for the class of ship. Just browse to the Art folder and tick the boxes.

Range Boxes sets the operational ranges for the aircraft type at cruise speed. The values entered are for single trips, not return distances which is used in game (max range excluded). Be careful.

Max, extended and normal ranges in two sets are shown, with and without DT. Also shown is the date when the **DT is active** on that aircraft type. Do not confuse this with the available date of the DT. Two separate things.

The info box at the very bottom of the *Aircraft View* screen displays this info in full.

Note: The game uses a simplistic model when it comes to range and loads. I don't know how it's been worked out, but I suspect it came from some external source. The simple calculation of speed x time = distance doesn't work here. E.g. Calculating max range for the Hudson $205 \times 685/60 = 2340$ miles. It's set at 1990 so there are other factors at play.

3.4.2. Aircraft Weaponry

	11 - 20 >>		Num	Facing	Filter
Wpn 1	1893	1893 - .30 Browning MG	02	00 - Front	00
Wpn 2	1893	1893 - .30 Browning MG	02	05 - Top Rear	00
Wpn 3	202	202 - 250 lb GP Bomb	04	11 - Internal	00
...	000	000 - MG	00	00 - Front	00

Very similar to the preceding Weaponry screens with the following exceptions.

The difference here is the **Wpn #** are used differently. **Wpn 1-10** are used for *normal range* operations, while **Wpn 11-20** are used for *extended range* operations. It doesn't seem to matter where you put devices on the weaponry but the official scenarios put MG/cannon first with bombs last as shown. DT always appear in slots **Wpn 9** and/or **Wpn 19** if any and the engine, yes the engine, in slot **Wpn 10**.

Facing is the direction the weapons in which the weapons can fire. This is a drop down list. The fields of fire are

F - Front
 S - Side
 R - Rear
 TT - Top Turret
 TR - Top Rear
 BR - Bottom rear
 UP - Upward
 Int - Internal
 XT - External

Filter No Idea. Don't think it does have a use an I can find no scenarios with anything other than 0 in it.

3.5. Air Groups View

Aircraft are assigned to Air Groups, historical organizations that operated and maintained aircraft. These Groups can be created or modified through the Air Groups button.

1		>>	0
ID	Name	Active	
001	IJNAF*****		
002	Amakusa Ku T-1	X	
003	Chichijima Ku T-1	X	
004	Chinbae Ku T-1	X	
005	Chitose Ku K-1	X	
006	Chitose Ku S-1	X	
007	Chitose Ku S-1 Det	X	
008	Fukuyama Ku K-1	X	
009	Genzan Ku K-1	X	
010	Genzan Ku S-1	X	
011			
012			
013			
014	Hakata Ku K-1	X	
015	Hakata Ku K-2	X	
016	Hakata Ku K-3	X	
017	Hakata Ku K-4	X	
018	Himeji Ku K-1	X	
019	Hokuto Ku T-1	X	
020	Hyakunihara Ku K-1	X	
021	Hyakunihara Ku K-2	X	
022	Isahaya Ku K-1	X	
Cut		Copy	Paste

The now familiar list, this time each ID number identifies a slot that an **Air Group** is assigned to. The list contains all the **Air Groups** used in the current scenario. You can use the *Search Bar* to find and navigate through the list.

Selecting an **Air Group** from this list to populates the right hand side of the *Air Group* screen with it's data. You can modify this data.

You can also use the Edit Bar to *cut*, *copy* and *paste* an existing ships in order to create a new **Air Group**. You can also create one from scratch.

3.5.1. Air Groups General Attributes

Name	Amakusa Ku T-1		Delay	450216	Disband	0
Rename	0	0	Withdraw	0	Reserve	0
Name Delay	0	Name Delay2	0	Return Delay	0	☐ CV Trained
Formation	02 - Hikotai 36 - 48 a/c		Morale	0	☐ A Bomb	
Nationality	02 - IJ Navy		Experience	0	☐ Replenish	
Air Class	668 668 - F1M2 Pete		Ready	10	☒ Trainer	
A/C Role Float Plane			Damaged	2	☐ Divide Group	
Leader	0	Random	BL	Max	12	☐ Air Group
HQ	33	033 - 10th Air Fleet	Altitude	0	☒ Static HQ	
Location	242	242 - Nagasaki/Sasebo	☒ Base ☐ Ship			
Upgrade	668	00 - F1M2 Pete	Search %	0		
Target	0	000 - None	Operations	00 - Day		
Mission	12 - Training		Kamikaze	00 - No		
Secondary	00 - None		Max Splits	Max Split(3)		
Parent	0	000 - None	Resize 1 YYMM-Sz	0	0	
Return As	0	000 - None				

Group Name is the nomenclature for the *Air Groups* initial name.

Rename the new name of the air group. This can happen twice. Name changes affect nothing but the name itself, they are for historical accuracy.

Name Delay is the 6 digit date when the AG is renamed.

Note: Both sides can do this but it mainly affects the IJN most of all. Historically the IJN went through two phases of re-organisation, late 42 and early 44.

Formation is the unit's size. Depending on the nationality of the Air Group, this will be standard naming conventions for the unit (i.e., US wing, Japanese sentai).

Nationality is the side and organization that the Air Group belongs to (e.g. US Marines, IJ Army, etc.).

Air Class. Believe it should say Aircraft Type. A drop down list displaying all *aircraft types* in the current scenario as determined under 3.4, (above). The text box underneath identifies it's main role.

Leader is the commander of the Air Group (see 3.9). The first field displays the leader ID Number, while the second displays his Name. You can only chose a leader via his ID number. The available choices are first limited by nationality then by *leader type* (e.g. what they are capable of commanding).

BL button selects the best leader for the Air Group. If you don't use this or you don't know the name or ID number of the suitable leader you will have to look through the Leader View Tab to find one. A tedious operation.

HQ is the headquarters under which this Air Group will operate. These are defined as *Locations* (see 3.6, below).

Location is the starting point for the air group in the current scenario. An appropriate starting point for an air group is either a base or a ship. **Bases** are define in the *Location View* (see 3.6) and have an ID number between 217-1999 inclusive. **Ships** are defined in the *Ships View* (see 3.3). Enter the ID directly or use the drop down list to make your selection (2.3.4).

As well as this you must also select **Base** or **Ship** using one of the two radial buttons immediately to the right. The Base and Ship selections determine whether Bases are listed in the Location field, or if Ships are listed. In this manner, Air Groups can be assigned to Bases or Aircraft Carriers and other appropriate ships.

Upgrade is the aircraft type that the air group will change over to (assuming the new aircraft type is available). If set to 0, the unit will follow the normal upgrade path for the aircraft type in the air group. If any other number is entered, the device will use that number as the aircraft type for its first **Upgrade**. Subsequent upgrades will then take the standard path of the first aircraft type that the air group upgrades to. This allows the player to have specific air groups take an upgrade path that is different from the path normally called for by its initial aircraft type.

Target is the *Location* of the unit's *Primary Target* when the scenario starts. The first field is the Location ID, while the second field is both the Number and the Location Name. If 0 there is no target.

Mission assigns the Air Group a specific primary mission. If 0, the unit will use the standard default missions.

Note: If **Kamikaze** is selected the mission will tell the pilots to carry out suicide attacks against a target irrespective of Date. Kamikaze attacks can become active on or after 1 Jan 1944.

Secondary assigns the Air Group a specific secondary mission. If 0, the unit will use the standard default missions.

Parent indicates the unit is a detachment. The detachment can be reattach to the air group named in the field.

Delay the 6 digit arrival date of the ship. Alternately the number of days until it's arrival may be used.

Disband is the 6 digit date when the Air Group must be disbanded by. Disbanding is normally permanent but they can return. A 0 indicated no disbandment.

Withdraw is the 6 digit date when the Air Group must be withdrawn. Withdrawing is normally temporary, often return at some later date. A 0 indicated no disbandment.

Return Delay is the 6 digit date when the Air Group returns to the game. 0 or 9999 indicates it does not return.

Return As. When a unit withdraws (or disbands) it may return. This is the ID and name used when it does.

Reserve is the number of aircraft within the Group that are held in reserve at the beginning of the Scenario.

Morale is the starting morale level of the Air Group. This should be between 0 and 99. If a 0 is entered, the unit will assume the standard morale for an air unit given the nationality and time of arrival. Refer to the Pilot Experience and Morale table 3.5.1.1 below. The values in the table are for both Morale and Experience.

Experience is the average overall experience of the Air Groups' pilots (not counting any historical pilots that are in the database attached to the unit. This should be between 0 and 99. If a 0 is entered, the pilots will assume the standard experience for an air unit given the nationality and time of arrival. Refer to the Pilot Experience and Morale table 3.5.1.1 below.

Ready is the number of aircraft within the group that are ready to take on a mission at the beginning of the Scenario.

Damaged is the number of aircraft within the Group that are damaged at the beginning of the Scenario.

Max is the *Maximum Ready Aircraft* value for the unit. If a 0 is entered, than the max ready value will be determined by the unit's Group Class.

Note: There's no mention of the term 'Group Class' in any documentation other than here. I've found it means **Formation**. I not tested it all but the values observed range between 9 - 48 aircraft dependent on formation size and aircraft type.

Altitude is the height the air group will fly at when performing it's missions. If 0, the unit will use the standard default values. These appear to range from 5K - 10K depending upon aircraft type and mission.

Search % This is the CAP/Search level that the unit will begin the scenario with. If 0, the unit will use the standard default values. Not sure this makes sense, in this instance 0 should mean 0???

Operations indicates whether the Air Group is set to perform day or night missions at the start of the scenario.

Kamikaze if selected tell the pilots to carry out suicide attacks against a target irrespective of Date. Kamikaze attacks become active on or after 1 Jan 1944.

Max Splits is the maximum number of divides of the group.

Resize is the year and month and new size of the group.

CV Trained allows the unit to operate from carriers without restriction. It is the pilots in the Air Group that are trained NOT the aircraft. Aircraft need to be carrier capable (see 3.4.1).

A Bomb the unit can carry an A-bomb. Only applies to the Allies.

Replenish causes the unit to become an *Air Replenishment Unit*. They are oversized air units that, when assigned to *Replenishment TF*, become a source of replacement aircraft for carrier based front line Groups. If their operating circumstance are met they may be used to carry out combat missions, but that's not their purpose. Both sides can use them but the Japanese had no equivalent. Land base units can also be replenishment units but there's no advantage in doing so.

Trainer are Air Groups dedicated to training pilots. They have a three time the normal number of pilots but cannot fly combat mission.

Divide Group Do not know. Don't think it's used.

Air Group when selected the unit becomes a Combine Air Group (CAG). These units do not have any aircraft themselves, instead have Air Group attached to them. They act like small HQs but with fewer abilities. CAG can still be used, especially for carrier based units but from what little I've gleaned on them they don't work as intended. I've seen no official scenario use them so I'd leave them alone.

Static HQ prevents the Air Unit from changing HQ.

3.5.1.1. Pilot Experience and Morale Table

Year	1941	1942	1943	1944	1945	1946
Japanese Army	35	35	35	35	35	35
Japanese Navy	35	35	35	35	35	35
US Navy	40	40	40	50	50	50
US Army	30	30	35	40	40	40
US Marine Corps	35	35	35	45	45	45
Australia	35	35	35	40	40	40
New Zealand	35	35	35	40	40	40
Great Britain	35	35	35	40	40	40
France	35	35	35	40	40	40
Dutch	30	30	35	40	40	40
China	20	20	35	40	40	40
Soviet Union	30	30	35	40	40	40
India	35	35	35	40	40	40
Commonwealth	35	35	35	40	40	40
Philippines	30	30	35	40	40	40
Canada	35	35	35	40	40	40

3.5.2. Air Group Weaponry

Slightly misleading. This is for info only displaying the weaponry of the groups assign aircraft (3.4.2). Editing here does not have any affect that I can see.

3.5.3. Air Group Total Boxes

The last thing on the *Air Groups View* screen are the two info boxes on the far right, one for each side. These just contain the number of air group and aircraft used in them by Air Class (aircraft type) for each nation. You will need to **Refresh Total** for an up-to-date count.

3.6. Locations View

Each *Ground Unit*, *physical location (base)* (e.g. city, port, etc.) or *ground unit TO&E* (Table of organization and Equipment) are defined for each scenario under the *Locations View*. From here all can be altered or new ones defined.

7		>>	0
ID	Name	Active	
019	3rd Fleet	X	
020	4th Fleet	X	
021	5th Fleet	X	
022	6th Fleet	X	
023	Southern Fleet	X	
024	8th Fleet	X	
025	9th Fleet	X	
026	Southwest Area Fleet	X	
027	Southeast Area Fleet	X	
028	China Area Fleet	X	
029	1st Air Fleet	X	
030	2nd Air Fleet	X	
031	3rd Air Fleet	X	
032	5th Air Fleet	X	
033	10th Air Fleet	X	
034	11th Air Fleet	X	
035	12th Air Fleet	X	
036	13th Air Fleet	X	
037	14th Air Fleet	X	
038			
039	1st Air Army	X	
040	2nd Air Army	X	
Cut		Copy	Paste

Each ID number identifies a slot that a **Location** is assigned to. The list contains all the **HQs, Bases, TO&Es** and **Ground Units** used in the current scenario. You can use the *Search Bar* to find and navigate through the list.

Selecting a **Location** from this list to populates the right hand side of the *Location View* screen with it's data. You can modify this data.

You can also use the Edit Bar to *cut*, *copy* and *paste* an existing ships in order to create any of the various types of **Location**. You can also create them from scratch.

Note: Command HQs are shaded blue in the list and should not be moved but can be altered.

Certain Locations must be left in their assigned slots as follows:

- **Japanese HQs** These *Primary HQs* must be located in slots 1-98 (although additional Japanese HQs may be located in the normal Japanese unit ranges)
- **Allied HQs** These *Primary HQs* must be located in slots 100-215 (although additional Allied HQs may be located in the normal Allied unit ranges).
- **Bases** must be located in slots 217-1999. Do not move any **Base** to a different slot as some parts of the game program assume these bases are in their current slots.
- **Japanese TO&Es** must be located in slots 2000-2349.
- **Allied TO&Es** must be located in slots 2350-2899.
- Slots 2900-2999 are reserved.
- Slots 3000-3004 must be left open as these are the slots used by Japanese *North Vietnamese militia units* that are mobilized each time (up to a maximum of four) an Allied unit moves into a border hex inside North Vietnam (from China to Hue).
- **Japanese ground units** must be located in slots 3005-4999.
- **Allied ground units** must be located in slots 5000-7999.
- **TFs** may be located in slots 8000-8499. Although TFs are classified as Locations they have their own *Task Forces View* tab. (3.7).

Slots 4,989 - 4,999 and 7,950 - 7,999 have specific invasion triggers associated with them and are not recommended to be used by modders.

Primary HQ's and bases can be altered but they should never be moved. It can cause the AI problems.

3.6.1. Common Location Attributes

Because of the varied **Locations** some attributes are not used by them all section. If it's not in the sub-section then it's not used.

Name	General Defence			Fuel	0	Fatigue	0	Refresh to get total	
Rename				Supply	340	Disabled %	11		
Name Delay	0	☐ ME	Supply Cap	0	Oil	0	Readiness		0
Type	04 - Headquarters			Resource	0	Unit Target	0		
Suffix	46 - Army			Daily Supply	0	Dest Hex X	0		
Nationality	01 - IJ Army			Daily Fuel	0	Dest Hex Y	0		
HQ	2	002 - General Defence Army		Daily Oil	0	Dest ID	0		
Leader	1053	Sugiyama, Hajime	BL	Daily Res	0	Unit To Load	0		
Near	252	252 - Tokyo		Japanese VP	0	Symbol	0		
Delay	0			Allied VP	0	Travel Time	0		
Withdraw 1/2	0	☐ 1 ☐ 2	Airfield	0	TOE ID	0	Garrison J	0	
HQ Type	109		Af Build	0	Upgrade TOE	0	Garrison A	0	
X	114		Forts	0	Experience	70	Prim Unit	0	
Y	60		Damage	0	Morale	50	Stance	00 - Defend	
Port	0		Port Dmg	0	☒ Static Attached		Unit Type	03 - non INF	
Port Build	0		Service Dmg	0	☐ Restricted Temp	☒ Restricted Permanent	☐ Convoy Unit		
			Runway Dmg	0					

Name is the nomenclature for the location (*HQ, base, ground unit, etc*).

Rename is the new name of the location. This is Generally only applicable to *HQs* and *Ground Units*. TO&E don't change name, Bases can but I don't know of one that does in the game.

Name Delay is the 6 digit date when the location is renamed. If the value is 0, or a date before the beginning of the scenario, then the unit will be renamed at the start of the game.

Type defines the Location's function, in this case it's a **Headquarters**.

Note: The following types are currently used in the game: Radar Site, Industry and Resource (all incorporated into a base as a device, Primary or secondary AF (they are all just AF).

HQ is the headquarters to which the *HQ, Ground Unit* or *Base* is attached.

Nation is the Nationality of the unit.

Near is used to place a Location on the map. If an existing Locations is selected the **x,y coordinate** will change automatically to match it. If the **x,y coordinate** is entered manually, this field will show the nearest base to the **x,y coordinate**.

Loc X is the X-(horizontal) coordinate location for the unit. This, along with the **Loc Y** (vertical) coordinate determines where the unit will be placed on the map.

Forts is the starting fortification value for the Location.

Supply is the amount of supplies a Location has at the start of the game.

3.6.1.1. Location Total Box

The box on the far right contain the number locations by type for each nation. You will need to **Refresh Total** for an up-to-date count.

3.6.2. HQ or Ground Unit Attributes Only

All the common location attributes are use with the following changes or additions.

Suffix will be determinant on the Type that is selected for the unit. A set of Suffixes may be chosen that will be added to the name of the unit in the location list and in various displays in the game. This drop down list will be different for each unit Type.

Note: When entering new ground units, be sure to enter a suffix (e.g. Bn for Battalion). This helps to not only identify the unit by its name, but also to identify what units can be lead by certain Leaders (some Leaders can only lead certain sized formations). For example, for an infantry unit, selecting suffix '002-Brigade' will mean that the unit will accept Large Ground Unit Leaders.

HQ. If a headquarters unit is attached to itself (as in the pic) then that headquarters is classified as a **Command HQ**.

Note: Another way to do this is to set it's **HQ Type** to 100, and not bother with the HQ attachment, however this could leave it attached to another HQ. That will confuse the AI. You can't do this in game but you can in the editor. Never assign one Command HQ to another Command HQ.

Leader is the commander of the HQ or Ground Unit. (see 3.9). The first field displays the leader ID Number, while the second displays his Name. You can only chose a leader via his ID number. The available choices are first limited by nationality then by *leader type* (e.g. what they are capable of commanding).

BL button selects the best leader for the HQ or Ground Unit. If you don't use this or you don't know the name or ID number of the suitable leader you will have to look through the Leader View Tab to find one. A tedious operation.

Delay the 6 digit arrival date of the ground unit. Alternately the number of days until it's arrival may be used.

Withdraw is the 6 digit date when the unit will be auto-withdrawn from the game.

Type of Withdraw these two buttons determine what happens to it's devices when it withdraws. Type 1 is no devices are returned to pool and type 2 all devices are returned to pool.

HQ Type This is only meaningful for HQ type units. This HQ type number determines what kind of HQ it is and its command radius (how many hexes away from the HQ it can impact operations).

There are 5 types of HQ types and their numeric values are: Command (100), Air (50), Amphibious (30), Naval (20) and Corps (0), added to which is the command radius as single digit between 1-9. E.g. If you are creating an Air HQ and you want it to have a command radius of 6, you should enter 56 (50+6). If you are creating a command HQ with a command radius 9 then it would be 109 (100+9).

The effect of an HQ on the game are as follows:

- **Command** and **Corps** HQs impact ground combat; on defense the nearest of either type will apply. On attack, both the nearest command and corps HQ apply.
- **Air** HQs impact air group operations.
- **Naval** HQs impact ship repair (only if in the same hex with the repairing ship) and TF loading speed.
- **Amphibious** HQs impact casualties taken by forces making amphibious invasions (only if in the hex of the invasion).

Port and **Airfield**. For many ground units, the AI uses the otherwise unused **Port** and **Airfield** fields together to determine when to change their HQ, as follows:

- The Port value is the month the change will happen based on the beginning month in the scenario (e.g. based on January 42 equal to month 1, January 43 to month 13, and so forth).
- The Airfield value is the Location number of the HQ that the unit will report to after the change occurs. This allows the scenario designer to set up certain "free" HQ changes at a specific time in the game for an AI player using these units.

TOE ID is the location number for the TO&E that this unit attempts to match by taking replacements. The unit will attempt to build up the same number of elements in each weapon slot to match the number in the TO&E.

- If the device or device type of the item in the weapon's slot of the unit matches the device or device type of the item in the same slot in the TO&E, the unit will accept replacements in order to build up to the number of elements in the TO&E.
- If these do not match, the program will assume that the starting number of elements in the weapon's slot for the unit is the full strength allotment for the unit and will try to keep this number of elements in the unit (taking replacements to make up losses).
- If this field is left 0, then the unit will assume that its starting strength is the standard TO&E for the unit, so it will only take replacements when it falls below this starting strength.

While units may point to any TO&E, we strongly recommend that the TO&E's weapon slots match up with the weapon slots of the unit. If these slots do not match up at least with similar device types, unexpected results may occur.

Some units are unique and have no TOE. In effect the their assigned weaponry is the TOE. These are easy to spot as the **TOE ID** is set to 0.

Exp indicates the overall experience of the ground unit's personnel. This should be between 0 and 99. If a 0 is entered, the unit will assume the standard experience (50) for a ground unit given the nationality and time of arrival.

Morale indicates the overall morale of the ground unit's personnel. This should be between 0 and 99. If a 0 is entered, the unit will assume the standard experience for a ground unit given the nationality and time of arrival.

Fatigue is the starting fatigue level of the unit.

Disabled % is the percentage of devices in this unit that begin the scenario disabled. This percentage will impact all devices in this location.

Readiness is the unit's current planning value (maximum of 100). This is the number of days that the unit has been planning for combat it expects to occur at its future objective.

Unit Target is the unit's future objective where it is planning to have combat. This is the location ID number for the base that is being targeted.

Destination Hex X is the x coordinate that the unit will move to. This should be left 0 if the destination is a hex with a base in it.

Destination Hex Y is the y coordinate that the unit will move to. This should be left 0 if the destination is a hex with a base in it.

Destination ID is the location ID number of the base that is located in the hex that this unit will move to.

Unit to Lead is the ID number of the unit leading a march. In game this occurs when units are set to follow.

Symbol determines what Nato symbol is displayed. I don't know where it is displayed as for 99% of official scenario it's set to 0.

Prim Unit is the parent unit of any *Ground Unit* broken down into sub-units at the beginning of a current scenario. E.g. The Japanese 47th Div could be broken down into its constituent parts, 3xRgt, 1xFA, 1xCav and 1xEng. Any unit identified in any **Prim Unit** field will not appear on the map until it is rebuilt. To rebuild it, all its constituent parts must (even if there's only one) be in the same hex.

Note: Occasionally small units were expanded into bigger ones. For example a regiment could be redesignated a division by this method. Set the Rgt's Prim Unit field to a Div then, as there's only one sub-unit you can recombine at anytime. Of course the TOE needs to be filled out but you do have a division in name. The only flaw in this is there's no dates control.

Stance is the unit's current combat order.

Unit Type is a descriptor used to help identify types of ground unit. I do not know how or where these are used in the game?

- 0 for anything that isn't a ground unit
- 1 for small unit
- 2 for large units
- 3 for a non-infantry

Convoy Unit is a special naval unit that carries devices from 'out of theatre e.g. the UK'. When it arrives on map it cannot be moved and will wait in port for a number of days before it withdraws, placing all its devices into the device pool.

Static Attached units cannot change their HQ but they are free to move anywhere. Applying **Static Attached** to an HQ only affects the HQ itself, it has no effect on any of the HQ's subordinate units.

Restricted Temporary units can change their HQ provided they pay an increased PP cost but they are free to move anywhere at no cost in PPs. **Restricted Temporary** HQs override any unit restriction, preventing subordinate units from moving outside of their command 'area' unless they or their HQ pay the increased PP cost. It does not prevent the units from changing their HQ attachment as that is controlled by unit restrictions. If the HQ pays then ALL subordinates attached to the HQ change but you only pay the cost of changing the HQ.

Restricted Permanent units cannot change their HQ and cannot move outside of their command area. **Restricted Permanent** HQs override any unit restriction, preventing sub-ordinate units from moving outside of their command 'area'. It does not prevent the units from changing their HQ attachment as that is controlled by unit restrictions.

Important Notes: These three attributes control where land and air units can move too, specifically using air and sea movement too bases not in the same command 'area'. The same attributes also control HQ attachment. Please note that an HQ is also a unit.

If none are selected the unit is classified as **unrestricted** and can move anywhere by any means and can change HQ at a cost in PPs.

In the manual (8.1.1.) it states, 'Restricted [R] – units may not move by air or sea unless the HQ is changed. Even when HQ's are changed subordinate units need to be individually acquired via PP's.' In theory this is what should happen but in practise it's impossible as the HQ is permanently restricted. A chicken and egg situation.

3.6.2.1. Restriction Example

Type	Name	Attached to	Type	Name	Attached to
AA	11th Air Defense AA Rgt	Central Army(R)	AA	11th Air Defense AA Rgt	Central Army
HQ a	14th Air Fleet	Central Army(R)	HQ a	14th Air Fleet	Central Army
INF	4th Div	Central Army(R)	INF	4th Div	Central Army
INF	52nd Div	Central Army(R)	INF	52nd Div	Central Army
INF	53rd Div	Central Army(R)	INF	53rd Div	Central Army
INF	54th Div	Central Army(R)	INF	54th Div	Central Army
HQ y	Central Army	Southern Army	HQ y	Central Army	General Defence[R]
ENG	Osaka Naval Base Force	Combined Fleet	ENG	Osaka Naval Base Force	Combined Fleet

The first images show four division all attached to to temp restricted Central Army (R). From top to bottom the divs are unrestricted, static, temp and perm restricted. Only the unrestricted and temp restricted divs can change HQ (not greyed out) at a cost of 1741 ans 3148 PPs respectively. To change the HQ in costs 160 PPs.

The second image show the same units after I changed the HQ. The Central Army is now unrestricted but the change has had no effect on the divs. It only cost 160 PPs.

Another thing to note is the Army's HQ was the unrestricted Southern Army. I change it to the Perm restricted General Defence [R]. It is the act of changing that matters.

Type	Name	Attached to	Type	Name	Attached to
HQ y	Central Army	Southern Army	HQ a	14th Air Fleet	Central Army
			AA	11th Air Defense AA Rgt	Central Army
			INF	52nd Div	Central Army
			INF	53rd Div	Central Army
			INF	54th Div	Central Army
			INF	4th Div	Central Army

Now look at the moving aspect. These units are in Osaka which is attached to the General Defence [R] and because the Central Army (R) is temp restricted it prevents any of the units other than itself from loading onto a ship. First image. After the change (2nd image) all the unit can be loaded onto a ship but there's one problem. The Central Army is no longer available. Why! I change it's HQ from an unrestricted HQ to a perm restricted one which prevents units form moving outside of there Command 'Area'. If I had chosen an unrestricted HQ for the change then the Central Army would also be available to load.

3.6.3. Bases Attributes Only

Name	Tokyo		Fuel	339200	Fatigue	0	IJ Army ==
Rename			Supply	142240	Disabled %	0	City
Name Delay	0	☐ ME	Oil	522440	Readiness	0	Port
Type	01 - Port		Resource	900000	Unit Target	0	Indust
Suffix	00 - None		Daily Supply	0	Dest Hex X	0	Res
Nationality	01 - IJ Army		Daily Fuel	0	Dest Hex Y	0	Prim AF
HQ	2 002 - General Defence Army		Daily Oil	0	Dest ID	0	Sec AF
Leader	0 Random		Daily Res	0	Unit To Load	0	Radar
Near	252 252 - Tokyo		Japanese VP	1	Symbol	0	HQ Cmnd
Delay	0		Allied VP	250	Travel Time	0	HQ Corps
Withdraw 1/2	0 ☐ 1 ☐ 2		TOE ID	0	Garrison J	0	HQ Naval
HQ Type	0		Upgrade TOE	0	Garrison A	1160	HQ Amphib
X	114		Experience	0	Prim Unit	0	HQ Air
Y	60		Morale	0	Stance	00 - Defend	Inf Corps
Port	10		☐ Static Attached		Unit Type	00 - Invalid	Inf Div
Port Build	9		☐ Restricted Temp		☐ Restricted Permanent		Inf Cav
			☐ Convo Unit				Inf Bde
							Inf Rct
							Inf Rgt
							Inf Bn

All the common location attributes are use with the following changes or additions.

ME Monsoon Effect is applicable to the bases. Monsoon season is between 15 May - 15 Oct.

Supply Cap is the daily limit to how much supply the base can receive per day overland. This represents the lack of storage facilities at a base and poor nature of the transport system in the area. Supply cap is affected by the size of the base, the larger the base the higher the supply cap will be. During the Monsoon season the Supply Cap is halved.

Note: Do not confuse this with the Supply Path. Supply path is the percentage of supply that could reach a hex from another hex.

Port is the current value of the port at this base.

Port Build is the Standard Potential Size (SPS) of the port at this base.

Airfield is the current value of the airfield at this base.

AF Build is the Standard Potential Size (SPS) of the airfield at this base.

Damage to what? Editor manual say base but I can't see what is damaged so I don't think it's used.

Port Damage is the percentage damage to the port at the start of the scenario.

Service Damage is the percentage service damage to the AF at the start of the scenario.

Runway Damage is the percentage runway damage to the AF at the start of the scenario.

Fuel is the amount of fuel in the base at the start of the game.

Oil is the amount of oil in the base at the start of the game.

Resource is the amount of resource in the base at the start of the game.

Daily Supply is the amount of supplies that will automatically arrive at this base each day.

Daily Fuel is the amount of fuel that will automatically arrive at this base each day.

Daily Oil is the amount of oil that will automatically arrive at this base each day.

Daily Resource is the amount of resource that will automatically arrive at this base each day.

Note: These daily setting are only applicable to small scenario and the Allies. In full scenarios the Japanese have their own production system where nothing is automatic.

Japanese Victory is the Basic VP level for Japanese ownership of the base.

Allied Victory is the Basic VP level for Allied ownership of the base.

Travel Time is the one way travel time from this base to an off map repair shipyard. This travel time assumes the ship can travel at a cruise speed of 15 knots. Slower ships will take more time. This is used in non-full map scenarios where ships can move off map from their main bases so as to repair and upgrade.

Garrison J/A is the combat AV requirement at a base in order to prevent damage from partisans occurring at that base. If they are not met destruction of base devices and services may occur.

3.6.4. TOEs Attributes Only

A TO&E is not a ground unit and neither can it remotely be considered a location. However the editor is what it is.

What it is is a list containing the number and type of device that is authorised to be used by a ground unit. TOEs vary considerably and contain the devices necessary for a ground unit to carry out its prime function, they are therefore based on type, size and nationality.

The only attributes of use to a TOE

Name is the nomenclature for the TOE.

Type defines the TOEs function.

Nation is the Nationality of the TOE.

Delay is the 6 digit date the TOE upgrades to a newer version as indicated in 'Upgrade TOE'. It is NOT the date that that TOE is available. Alternately the number of days until its arrival may be used.

HQ Type This is only meaningful for HQ type units. This HQ type number determines what kind of HQ it is and its command radius (how many hexes away from the HQ it can impact operations).

Note: They are some other code in this field all associated with TOEs, 220 appear to be Japanese, 221 when Allied, 220 when it's Japanese but I also found 201, these are assigned to Aus units. I don't think these codes are relevant.

TOE ID its ID number.

Upgrade TOE is the next TOE ID that will replace the current one when it becomes available as indicated by the 'Delay' date. The TOEs do not upgrade, rather it is the ground unit that switch to the new TOE.

Exp indicates the overall experience of the ground unit's personnel. This should be between 0 and 99. If a 0 is entered, the unit will assume the standard experience (50) for a ground unit given the nationality and time of arrival. I'm not sure this is needed for a TOE.

Morale indicates the overall morale of the ground unit's personnel. This should be between 0 and 99. If a 0 is entered, the unit will assume the standard experience for a ground unit given the nationality and time of arrival. I'm not sure this is needed for a TOE.

Symbol determines what Nato symbol is used for this TOE.

Unit Type is a descriptor used to help identify types of ground unit. I do not know how or where these are used in the game?

- 0 for anything the isn't a ground unit
- 1 for small unit
- 2 for large units
- 3 for a non-infantry

3.6.5. Locations Weaponry

What you see depends on the type of Location you are viewing. Some devices must be placed in specific slot before they function correctly. Torpedo Ordnance must be in slot#19 and

HQ, Ground Unit or TOE Locations

11 - 20 >>	Use TOE	☐ ShowTOE	Split	Num	Dis	Refresh Units	☒ LCU	☐ A/C	☐ Ships
Wpn 1	1108	1108 - US Cmbt Eng Sqd	▼	216	00				
Wpn 2	1111	1111 - US MMG Section	▼	36	00				
Wpn 3	1126	1126 - 0.5in M2HB AAMG x4	▼	12	00				
Wpn 4	1250	1250 - Engineer Vehicle	▼	32	00				

Displays the familiar weaponry screens containing 20 weapon slots for, each of which can contain a weapon device. Each slot includes *Device ID, name, number of devices* and a *disabled* amount that the unit has when the scenario starts.

If Torpedo Ordnance device is used it must be placed in slot #19.

At the top there are a number of other options:

- **Use TOE** button can be used to populate the weaponry screen with a device's type, suffix, nationality, symbol, unit type and their weapon fields based on it's TOE ID.
- **Show TOE** check box shows the units TOE. For non editor breakdowns (splits) this is based on TOE ID field (see below). If you used the previous button they will be the same but they do not have to be (see 3.6.2.).
- **Split** is an editor function that provides an easy way to divide large formations into their small constituent parts. (see 3.6.4.1 below).

The info box, refresh button and check boxes on the right does nothing in the weaponry screen.

Base Locations

11 - 20 >>	Use TOE	☐ ShowTOE	Split	Num	Dis	Refresh Units	☒ LCU	☐ A/C	☐ Ships
Wpn 1	520	520 - Manpower	▼	162	00	002 - General Defence Army	0		
Wpn 2	519	519 - Resources	▼	280	00	010 - 2nd Area Army	420701		
Wpn 3	518	518 - Oil	▼	05	00	011 - 8th Area Army	421109		
						037 - 14th Air Fleet	440304		

Same layout except the 20 weaponry slots now display industrial devices only.

Critical note: If there are any production items at a base, one of them must be listed in the first weapon slot (**Wpn 1**) of the base. I've noticed that all official scenarios use manpower for this purpose.

The **Info box** on the right is for base Locations. It displays:

- **LCU** at or appearing in (with date) the base during the current scenario.
- **Air Groups** (not AC) at or appearing in (with ac, numbers and date) the base during the current scenario.
- **Ships** at or appearing in (with type capacity and date) the base during the current scenario.

You will need to **Refresh Total** for an up-to-date count.

3.6.5.1. Splitting units.

Split button is an editor function only. It is used to break down large formations (Tank Bde or larger) into their small constituent parts. The best way to explain editor breakdowns is through an example.

Before you start you will need to find an empty area large enough to take all the constituents parts. Ideally in the in the correct area (Japanese Ground Unit here) for the unit you are breaking down but it doesn't really matter, you'll just have to move them afterward. Why! well your slot numbers are altogether making it's much easier.

7679	56th Army	X
7680		
7681		
7682		
7683		
7684		
7685		
7686		
7687		
7688		
7689		
7690		
7691	71st Chinese Corps	X

7679	56th Div	X
7680	56th/1st Rgt	X
7681	56th/2 IR/1st Bn	X
7682	56th/2 IR/2nd Bn	X
7683	56th/2 IR/3rd Bn	X
7684	56th/3rd Rgt	X
7685	56th/1st Art Rgt	X
7686	56th/2nd Art Rgt	X
7687	56th/3rd Art Rgt	X
7688	56th/4th Cav Rgt	X
7689	56th/1st Engr Rgt	X
7690		
7691	71st Chinese Corps	X

In this example I'm going to split the IJA 56th Inf Div. First move or copy it to an empty slot, in this case 7679. It's in the Allied Ground area so I'll have to move them when the split is complete. The pics above show before and after split.

Breakdown

Choose slot IDs for new units. New units will overwrite existing slots.
Divisional assets are optional.
Only (Tank)Bde or larger.

Rgt 1	7680	☐ Split to Bn	0	0	0
Rgt 2	0	☒ Split to Bn	7681	7682	7683
Rgt 3	7684	☐ Split to Bn	0	0	0

☒ Arty 7685 7686 7687

☒ Cav 7688

☒ Eng 7689

OK Cancel

Insure the 56th Div **Delay** is set to 0 and that it has a proper TOE ID. Then press the "**Split**" button to bring up the breakdown screen left.

From here you can choose the sub-units I want with their ID numbers.

What you choose depends upon what the **Prim unit** has. For instance it it has no cavalry there's no point in creating a Cav unit, although you can, it just won't have any Cav units in it.

As can be seen I've here I've split the unit up into 3 Rgts with Rgt 2 further split into Bns. I've also opted to create 3 Art Bn, 1 Cav Bn and 1 Eng Bn. These last three are optional. If you don't do it their devices are divided evenly between the Rgt.

I've allocated an ID number to each unit, they're all consecutive (easier than being scattered).

After pressing ok the sub-units will be created to their ID slot and all are placed in the same location that the **Prim** occupied. The **Prim** unit's leader (if any) is moved to the lowest sub-unit (1st Rgt). You can now edit the

rest, E.g. assign leader, place in different locations, change delay etc.

Also you will notice that all the sub-units **prim unit** field now points to the parent (very important). I've not seen a case where this has not happened but if it does either do it again or manually enter it.

Don't forget to move them if required.

Manual breakdown

The breaking down can also be carried out manually. I'm not going into details but it's just standard editing and will take much longer to complete. This split system works so I see no need to do it for large formations but if you wish to split smaller ones then you have no choice but to do it manually.

3.7. Task Forces View

Task Forces are in effect special locations. They have Location ID slots between 8000-8499 but have there own view screen. In the game only the last three digits are used. E.g. 1-499.

Note: It doesn't matter where a TF is within these slots. In game TF ID numbers are allocated on a first come, first served basis. In the editor its easier to arrange them into sides.

8000		>>	0
ID	Name	Active	
8000	TFMIN		
8001	Kido Butai (*)		
8002	IJN tankers (*)		
8003	IJN cruisers (*)		
8004	Kuching Cbt TF (*)		
8005	Heavy Cover (*)		
8006	Guam Cover Force		
8007	Singora Cbt TF (*)		
8008	IJN destroyers (*)		
8009	IJN destroyers (*)		
8010	IJN destroyers (*)		
8011	IJN cruisers		
8012	Vigan Cbt TF (*)		
8013	Legaspi Cbt TF (*)		
8014	Aparri Cbt TF (*)		
8015	Makin Invasion		
8016	Wake Invasion		
8017	IJN destroyers (*)		
8018			
8019	Aparri Cover Force		
8020	Guam Invasion		
8021	I-1		
Cut Copy Paste			

Task Force (TF) are defined for each scenario under the *Task Forces View*. From here all can be altered or new ones defined.

Each ID number identifies a slot that a **TF** is assigned to. IThe list contains all the **TFs** used in the current scenario. You can use the *Search Bar* to find and navigate through the list.

Selecting an **TF** from this list populates the right hand side of the *Task Force View* screen with it's data. You can modify this data.

You can also use the **Edit Bar** to *cut*, *copy* and *paste* an existing ships in order to create any of the various types of **TF**. You can also create them from scratch.

3.7.1. TF Attributes

Name	Kido Butai (*)		☐ Pt1/ID ☐ Pt2 ☐ Pt3	
Type	12 - Task Force	Routing	00 - None	X/ID 0 Y 0
Suffix	00 - None	☒ First Turn Movement Bonus		No Routing
Nationality	02 - IJ Navy			
HQ	228	228 - Hiroshima/Kure		
Leader	4458	Nagumo, Chuichi BL		
Near	294	294 - Etorofu		
X	128			
Y	52			
Delay	0			
Mission	01 - Air Combat			
Retirement	00 - Allowed			
Reaction	00 - Don't react to enemy TF			
Home Base	246	Osaka/Kyoto		
Dest Hex X	180			
Dest Hex Y	104			
Dest ID	0			
Refresh Units	☐ LCU ☒ Ships			
002 - Kaga CV 72 411206				
003 - Hiryu CV 71 411206				
004 - Soryu CV 63 411206				

Name is the nomenclature for the TF. When a TF is created in game the first available slot is used. That number then becomes the TF's name using only the last three digits.. E.g. In the list above, slot 8018 is the first free one. The first TF created during a (irrespective of side) would be TF 18.

Note: In game you can rename a TF in a similar way to those listed above. This helps keep track of TF. i.e. where they are going to, carrying etc.

Type defines the Location's function, in this case it's a **Task Force**.

Suffix Not used.

Nationality is the country of origin. In game this is normally determined by the lead ship.

HQ is the headquarters to which the *TF* is attached. TF attachments don't matter. This is only useful for organisational purpose, home port etc.

Leader is the commander of the TF (see 3.9). The first field displays the leader ID Number, while the second displays his Name. You can only chose a leader via his ID number. The available choices are first limited by nationality then by *leader type* (e.g. what they are capable of commanding). In game only leaders of the same nationality as the flagship can be selected.

BL button selects the best leader for the HQ or Ground Unit. If you don't use this or you don't know the name or ID number of the suitable leader you will have to look through the Leader View Tab to find one. A tedious operation.

Near is used to place a TF on the map. If an existing Locations is selected the **x,y coordinate** will change automatically to match it. If the **x,y coordinate** is entered manually, this field will show the nearest base to the **x,y coordinate**.

Loc X is the X-(horizontal) coordinate location for the unit. This, along with the **Loc Y** (vertical) coordinate determines where the unit will be placed on the map.

Delay the 6 digit arrival date of the TF. Alternately the number of days until it's arrival may be used.

Mission is the primary purpose of the TF based on the ships included in it.

Retirement sets the retirement orders for a task force.

Reaction sets the reaction orders for a task force.

Home base is the base IDnumber for the home base of a task force.

Destination Hex X is the x coordinate that the unit will move to. This should be left 0 if the destination is a hex with a base in it.

Destination Hex Y is the y coordinate that the unit will move to. This should be left 0 if the destination is a hex with a base in it.

Destination ID is the location ID number of the base that is located in the hex that this unit will move to.

Routing is optional and defines possible path/movement options: This are:

- **None**
- **Follow** the indicated TF set by **X/ID**.
- **Waypoint** which will traverse up to three waypoints, **Pt1/ID, Pt2** and **Pt3** plus destination ID. Each waypoint requires an **x/y** coordinates set.
- **Patrol** continual and 'Patrol' an area set by **Pt1/ID, Pt2** and **Pt3** and their **x/y** coordinates. When fuel/ammo is low or it suffers significant damage it will return to it's home port for repair/replenishment.

First Turn Movement Bonus provides TF with accelerated movement for the first game turn only otherwise TF will use normal movement. This represent the early deployment of units that result in surprise.

TF Info Box

The **Info box** on the right displays:

- **LCU** carried by the TF at the start of the current scenario.
- **Ships** in the TF with ID, name, type, load capacity and arrival date (99.9% sure the date will be the start of the current scenario.) the base during the current scenario.

You will need to **Refresh Total** for an up-to-date count.

3.8. Named Pilots View

Pilots are special individuals that are generally better trained and have more experience than newer pilots. Generally these are historical figures. Most begin in the game but not all, some arrive as reinforcement. Up to 19,999 individual Pilots (total of both sides) may be created.

Note: These are named **Pilots**. Both side will have need of newer, unnamed pilots throughout the war. These are created in game as and when need arises.

1		>>	0
ID	Name	Active	
001	1st Sentai=====		
002	Kimura, T.	X	
003	Masuzawa, M.	X	
004	Tarui, M.	X	
005	Matsu-ura, T.	X	
006	Shiromoto, N.	X	
007	Shishimoto, H.	X	
008			
009	4th Sentai=====		
010	Kashiide, I.	X	
011	Kimura, S.	X	
012	Takamiya, K.	X	
013			
014	5th Sentai=====		
015	Ito, F.	X	
016	Ito, T.	X	
017			
018	9th Sentai=====		
019	Nakada, Y.	X	
020	Yoshioka, Y.	X	
021			
022	11th Sentai=====		

CutCopyPaste

Pilots are defined for each scenario under the *Pilots View*. From here all can be altered or new ones defined.

Each **ID number** identifies a slot that a pilot is assigned to. The list contains all the pilots used in the current scenario. You can use the Search Bar to find and navigate through the list.

Selecting a pilot from this list populates the right hand side of the *Pilots View* screen with it's data. You can modify this data.

You can also use the **Edit Bar** to *cut*, *copy* and *paste* an existing pilot in order to create any new pilots. You can also create them from scratch.

3.8.1. Named Pilot Attributes

Name	Kimura, T.	IJ Army - exp / #pilots
Rank	01 - 2LT - IJA	< 60 11
Experience	81	60 - 69 3
Delay	411206	70 - 79 95
Air Group	1001 1001 - 1st Sentai	80 - 84 17
Is Leader	0 Not a leader	85 - 89 0
Nation	01 - IJ Army	90 - 94 0
Plane Type	00 - Fighter	95 - 100 0
		Total IJA 150
		=====
		IJ Navy - exp / #pilots
		< 60 28

Name is the first initial and last name of the Pilot.

Rank of the Pilot is based on the Pilot's nationality.

Experience level of the pilot..

Delay the 6 digit arrival date of the ship. Alternately the number of days until it's arrival may be used.

Air Group the pilot attached to, if any. If the AG already has enough pilots he will remain attached to the Air Group, appearing as a replacement pilot when the air unit needs one. The pilot will not appear on the list of the Air Group's pilots until he actually is needed to fly an aircraft.

Is Leader for pilots that are also leaders. If the Pilot is a Leader, then their Leader Number appears in the next field, along with their name to the right. If this is not selected then 'Not a Leader' will be displayed.

Nation is the side and organization that the pilot belongs to (e.g. US Marines, IJ Army, etc.).

Plane Type is the aircraft type which the pilot specializes in. Select a Type from the drop down menu(e.g. fighter, level bomber, etc.).

Info Boxes on the right display the levels of experience and the number of pilots with that experience for all nations. Japan on top, Allies underneath.

You will need to **Refresh Total** for an up-to-date count.

3.9. Leaders View

Leaders are special individuals that influence combat formations, whether through influencing their formations' abilities in combat or affect logistics. Generally these are historical figures. Most begin the game but not all, some arrive as reinforcement. Up to 29,999 individual Leaders (total of both sides) may be created.

Note: These are named **Leaders**. Under certain circumstance the game may create factious leaders when need arises.

1		>>	0
ID	Name	Active	
001	Abe, Heisuke	X	
002	Abe, Koichi	X	
003	Abe, Isao	X	
004	Abe, Testsuho	X	
005	Adachi, Hatazo	X	
006	Adachi, Juro	X	
007	Aida, Shunji	X	
008	Akashi, Taijiro	X	
009	Akashiba, Yaezo	X	
010	Akashika, Tsutomu	X	
011	Aizawa, Takuji	X	
012	Akamine, S.	X	
013	Akikusa, Shun	X	
014	Akinaga, Chikara	X	
015	Akinaga, Tsutomu	X	
016	Aizawa, Torashio	X	
017	Akiyama, Gida	X	
018	Akiyama, Toyoji	X	
019	Akiyama, Yoshisuke	X	
020	Akiyama, Yoshitaka	X	
021	Amakasu, Shigetaro	X	
022	Amamiya, Tatsumi	X	

CutCopyPaste

Leaders are defined for each scenario under the *Leaders View*. From here all can be altered or new ones defined.

Each **ID number** identifies a slot that a leader is assigned to. The list contains all the leaders used in the current scenario. You can use the Search Bar to find and navigate through the list.

Selecting a leader from this list populates the right hand side of the *Leaders View* screen with it's data. You can modify this data.

You can also use the **Edit Bar** to *cut*, *copy* and *paste* an existing leader in order to create any new leaders. You can also create them from scratch.

3.9.1. Leader Attributes

Name	Abe, Heisuke	Refresh to g
Rank	08 - LGEN - IJA	
Nation	01 - IJ Army	
Type	02 - Large Ground Unit	
Delay	420101	
Skill	63	
Inspiration	66	
Naval	35	
Air	44	
Land	66	
Admin	46	
Aggression	74	
Political	7	

Refresh to g

Name is the first initial and last name of the Leader.

Rank of the leader is based on the Leader's nationality

Nationality identifies the country the Leader fights for IJA and IJN are separate countries for purposes. A Leader may only command units that are the same nationality as he such as for Task Forces with the nationality of the flagship determines which nationality leaders may be put in charge of it. This is only applicable to the units themselves and not to any combat involving multiple at countries or formations. Other rules are in place for such events.

Type indicates what type of unit this **Leader** can command (Headquarters, Large Ground Unit, Small Ground Unit, Task Force, Ship, Air Unit).

- **Large Ground Unit** Leaders command Brigades, Divisions, and Corps units.
- **Small Ground Unit** Leaders command Regiment and smaller units, including support type units (e.g., base forces, AA units, engineers, etc.).
- **Task Force** Leaders may only command Task Forces.
- **Ship** Leaders may only command Ships, although if in command of a TF's flagship, they may also command the TF if no Leader is assigned.
- **Air Unit** Leaders may only command air groups.
- **HQ** Leaders may only command HQ units, except USN and IJN nationality HQ Leaders, whom also may command TF's.

Delay the 6 digit arrival date of the ship. Alternately the number of days until it's arrival may be used.

Skill is the overall effectiveness of the leader. It increases the experience gain by units in combat.

Inspiration is the leader's ability to influence those under his command. The higher the value, the more effective those under him will be by raising morale and reduce fatigue and disruption caused by the combat.

Naval affects surface actions and measures the leader's ability to direct all manner of naval surface operations, except air operations.

Air operations is a measures the leader's ability to direct all manners of air operations (air strikes, reconnaissance, etc.). This includes air operations from carriers.

Land combat is a measures the leader's ability to direct land-based forces. This includes amphibious operations.

Administration measures the Leader's organizational abilities. Typically the ability to receive replacements, recover from fatigue and disruption.

Aggressiveness measures the Leader's willingness to take risks. The higher the number, the more chances the Leader will take and will more often seek contact than not.

Political Value represents the political power this leader has within the military and/or civilian chain of command. The higher the value, the easier it is to assign this leader a command, and the harder it is to remove him from a command once he has been assigned.

Info Boxes on the right display the total number of leaders available for each **Type** of unit list by country. Japan on top, Allies underneath.

You will need to **Refresh Total** for an up-to-date count.

4.0. Scenarios Options

There are four Options on this screen, each one accessible through the four button in the bottom left of the screen. *Main, Pilots, Locations, Air Groups*, and. I think the layout of these screen odd, with much of what you can see and do irrelevant and or duplicated.

4.1. Scenario Variables

Selecting *Main* enable you to set up a scenario.

On left hand side there's a list of all the Locations in the current scenario. These are not editable from this screen and neither do they do anything if selected. They are just info.

The right hand is the important bit and it looks like this.

Comment	December 1941 Start	Japanese	
Author	WITP:AE Team	Home Base	0
Left X	0	Main Base 1	0
Top Y	0	Main Base 2	0
Right X	231	Main Base 3	0
Bottom Y	204	Start Politics	500
Day	7	Politics / Turn	50
Month	12	Allied	
Year	41	Home Base	0
Turns	1634	Main Base 1	0
Weather	00 - Clear	Main Base 2	0
Use AI	00 - No	Main Base 3	0
IJ Production	01 - Yes	Start Politics	100
Allied Production	01 - Yes	Politics / Turn	50
Score Dmg Ships	00 - No		
Activate Soviet	00 - No		
Kamikaze Avail	00 - No		
☐ Use Respawn			

Comment is where the user should enter a brief (maximum of 30 characters) description of the scenario.

Author is the designer(s) of the scenario. Enter their name (maximum of 30 characters).

Left X, Top Y, Right X and **Bottom Y** determine the size of the map. For full scenarios **Left X/Top Y** will be 0/0 indicating the uppermost left corner of the map, while **Right X/Bottom Y** will be 231/204 indicating the lowermost right corner of the map. For smaller scenarios these figures can be anything in between.

Note: it should stressed that these sizes are the maximum size of the game screen, not the map playing area. There is a border around the map were boxes representing 'off map area areas. E.g. UK' are placed were special rules apply (see manual). Throw in a couple of info boxes and you have a full scenario playing area less than the maximum size. The approximate playing area 4/3 to 225/202.

Day, Month and **Year** all determine the starting date for the scenario. Only two digits is requires for the year.

Turns determines the length of the scenario in days. In this example, the number is 1634 indicating the game will last 1,634 game days or up to the point were an automatic victory is achieved.

Weather determines the weather at the start of the scenario. It affects all weather zones.

Use AI. I don't think this does anything. The game's predecessor, WitP had an option were part of the game could be controlled by the AI. This may be a leftover from that?

IJ Production indicates whether production rules are active for the Japanese player. If **No**, there will be no active Japanese industrial items in the scenario (factories, oil centres, resource centres, manpower, repair shipyards) and all replacements must come from the device and air unit type build rates. Supplies and fuel must come from daily values at specific locations (generally home/main bases).

Allied Production indicates whether production rules are active for the Allied player. If set to **No**, there will be no active Allied industrial items in the scenario (factories, oil centres, resource centres, manpower, repair shipyards) and all replacements must come from the device and air unit type build rates. Supplies and fuel must come from daily values at specific locations (generally home/main bases).

Note: Even when Allied production is on, production will be limited and Allied Build Rates are the bulk of their replacements (see production rules).

Score dam ships indicates whether or not victory points should be scored by a side that inflicts damage to another's ships (as opposed to just for sinking ships). See the rules on Victory Conditions for details on what points are scored for damage versus sinking of ships. This rule is generally only applied to full scenarios.

If this is set to **Yes** in small scenarios (i.e. not full map) then it will also prevent ships from returning to their *National Base* for repair. Normally off map but it doesn't have to be. E.g. Osaka, Pearl, Sydney, etc. (page 115 main manual).

Note: Currently the rule is wrong as there's no reference to repair of standard flooding, you have to repair it first. Ships with only major flooding can be sent back.

Activate Soviets enables the game to start with the Soviets already activated. If **No**, they must be activated by the rules on *Soviet Activation* listed elsewhere in the manual.

Kamikaze Avail enables the use of *Kamikaze Air Units* units. If **Yes**, standard Japanese air units may be converted into Kamikaze units at the beginning of the scenario (if not already started as a Kamikaze unit). If **No**, then Kamikaze creation may still be triggered during the scenario based on the criteria listed elsewhere in the manual.

Re-spawn allow destroyed ground units and ship to automatically come back as reinforcement. Well at least I think it does?

Home Base corresponds with the Location number of the base that is the default base on the map where a side's reinforcements, supply and fuel arrive if not specified otherwise. This should be the major rear area base. As an example, in a South Pacific scenario, this is almost always going to be Truk for the Japanese. In full map scenarios no Home Base or Main Bases should be designated.

Notes: All scenarios have a **Home** base. In full scenarios it's their *National* base E.g. Tokyo. In small scenarios these bases are unlikely to be on the map therefore a **Home** base is needed.

Main Base 1, 2, or 3 corresponds with the Location number of major bases for either side (for example, Location number 664 - Truk in the Main Base 1 field would indicate that Truk is a major base for the Japanese, but not the Home base). They should be listed in the order of priority of where reinforcements should arrive if no specific base is mentioned for the reinforcement, or if their entry location is enemy controlled.

Start Politics indicates the number of *Politics points* that the side begins the scenario with.

Politics/Turn indicates the number of *Politics Points* received per day for each side.

4.2. Unnamed Pilots

The *Pilots* button opens a manpower pool display that controls the recruitment of Unnamed Pilots.

On left hand side there's a list of all the Locations in the current scenario. These are not editable from this screen and neither do they do anything if selected. They are just info.

The right hand is the important bit and it looks like this.

Nationality	Pool	Exp	Rate	00 - 1941
IJ Army	2202	35	195	
IJ Navy	1700	35	150	
US Navy	6770	40	600	
US Army	4935	30	435	
US Marines	1270	35	115	
Australian	815	35	70	
New Zealand	405	35	35	
British	2200	35	190	
French	0	35	0	
Dutch	0	35	0	
Chinese	115	25	10	
Soviet	420	30	35	
Indian	140	35	12	
Commonwealth	0	35	0	
Philippines	0	30	0	
Canada	232	35	20	

Nationality including major service branches in the cases of the IJA/IJN and US Navy/Army/Marines.

Pool is the starting number of replacement pilots for that nationality.

Experience is the starting experience level of the replacement pilots (this is modified by a random factor for each pilot).

- A rating of 50-60 is a thoroughly trained pilot with many months of flight time, but no combat experience.
- A rating of 25-30 is a hastily trained pilot.
- A rating of 0 is a pilot in name only.

Altering this number can have dramatic effects on the air battles in the scenario. If the pool is empty when a replacement pilot is needed, a pilot will be provided with a base experience of half of the normal replacement pilot experience for

that nationality.

Rate indicates the monthly rate at which the **Pool** figure regenerates pilots.

Year determines the experience and rate of replacement pilots for different periods of the war.

4.3. Location and Air Groups

These buttons do nothing except display info available elsewhere.

5.0. AI Data Scripts

I've not done any script editing so I'm even less than a novice than you might be but it seems to me the hardest bit of creating scripts is not using this screen but knowing where your units are (*Script Elements*) or will be when the script activates. E.g. Not using a unit attached to the North China Area Army when creating a script to invade Noumea. Bearing this in mind this is my take.

There are 999 AI script/module slots available that can be defined for either side for both small and full map scenarios. Any slot may be used for a script for either side. By using the AI scripts, the scenario designer can implement multiple AI strategies for units across the map.

Scripts transition through states and never regress.

1. **Not Active** – units are not assigned.
2. **Active** – when a script becomes active units that are not currently assigned to another 'Active' script can be assigned or re-assigned.
3. **Defend** – is entered when the last assault target is captured. Script are still running and can re-active but units assigned can be re-assigned to other scripts.
4. **Dead** – when a script becomes dead the units that are still assigned are then unassigned and the script no longer functions.

Scripts are activated and killed through chaining, dates, triggers or a combination of all. On the left hand side there's the usual list, this time with all the scripts available to the current scenario. Selecting one populates the right hand side.

ID	Name	Active
001	Attack Luzon 14th Army	X
002	Attack Luzon 16th Div	X
003	Attack Luzon 48th Div	X
004	Attack Luzon 19th Div	X
005	Attack Luzon - Hwy Arty	X
006	Attack Mindanao	X
007	Attack Mindanao (2)	X
008	Early Mindanao	X
009	Move 20th Army	X
010	IJA 19th Div Sweeper	X
011	Attack PI Islands	X
012	Defend PI - A	X
013	Defend PI - B	X
014	Defend PI - C	X
015	Defend PI - D	X
016	PI Islands Defence	X
017	Luzon Defence	X
018	Attack Luzon Legaspi	X
019	Attack Sweeper	X
020	Attack Mindanao (3)	X
021	Attack Celebes	X
022	Attack Ceram	X

Cut

Copy

Paste

AI Data Script is defined for each scenario under the *AI Data View*. From here all can be altered or new ones defined.

Each **ID number** identifies a slot that a **script** is assigned to. The list contains all the scripts used in the current scenario. You can use the Search Bar to find and navigate through the list.

Selecting a script from this list populates the right hand side of the *AI Data View* screen with it's data. You can modify this data.

You can also use the **Edit Bar** to *cut*, *copy* and *paste* an existing leader in order to create any new scripts. You can also create them from scratch.

5.1. AI Script Elements

The box in the top left corner labelled **1. Assault Bases** in the pic below enables you to enter the **Script Elements** being used in the script. E.g. targets, units etc. All targets and units currently used in the script can be seen in the *Script Box*, bottom left dependant upon your **Script Element** selection.

Unfortunately they is no convenient drop down boxes here. You need to know the *ID number* for targets and units.

1. Assault Bases

Name: Attack Luzon 19th Div

Previous: 0

Date Start: 420301

Date End: 421201

Cmd HQ: 4 Southern Army

Air HQ: 3027 3rd Air Div

Adv Base: 629 Lingayen

01 - Iba - 625
02 - Bayombong - 623
03 - Lingayen - 629
04 - Clark Field - 624
05 - Cabanatuan - 1529
06 - Manila - 631
07 - Iba - 625
08 - San Fernando - 633
09 - Cabanatuan - 1529
10 - Batangas - 622
11 - Mauban - 626
12 - Lucena - 630
13 - Atimonan - 1462
14 - Naga - 632
15 - Legaspi - 628
16 - Bataan - 621

01 - 5th Sentai (1007) San Fernando (633)
06 - 6th Ku S-1 (172)
07 - 8th Ku T-1 (173)
08 - 208th Sentai (1110)
09 - 63rd I.F. Chutai (1146)
10 - 91st I.F. Chutai (1165)
11 - 34th Sentai (1043)

1007 Add Insert Delete 633 Ass

These *IDs* are entered into the small *ID box* on the right before **Adding** or **Inserting** them into the list currently shown in the *Script Box*.

Add simply puts the element at the bottom of the list.

Insert does a similar thing but this time you select an element from the list first, the new element is then inserted in the list directly above your selection.

Note: Well at least that's how I think it's supposed to work. In practices there's a bug. Instead of putting the new element directly above you selection it appears two above, or at the top if nothing selected?

Delete removes the element from the list.

5.1.1. Garrison Units

05 - 5th Sentai (1007) San Fernando (633)
06 - 6th Ku S-1 (172)
07 - 8th Ku T-1 (173)
08 - 208th Sentai (1110)
09 - 63rd I.F. Chutai (1146)
10 - 91st I.F. Chutai (1165)
11 - 34th Sentai (1043)

1007 Add Insert Delete 633 Ass

If the element is a unit you can 'fix' the unit in place so that it does not move from a particular bases. E.g. *Garrison* it with air or ground units. The AI will only garrison a base if it is friendly with no enemy in the hex. To assign a garrison unit enter a *base ID* number in to small box on the right labelled 'Assign to base' prior to **Adding** or **Inserting**.

Garrison unit will not be reassigned until the scrip ends.

In this instance the 5th Sentai (1007) is set to garrison San Fernando (533).

5.1.2. Types of Script Elements

The box in the top left corner labelled **1. Assault Bases** enables you to enter the *Script Elements* being used, E.g. base or units. There are five types of script each requiring some type of script element. All targets and units currently used in a script type can be seen in the info box, bottom left as well as all the controls to do so. (see 5.2).

Assault Bases are the bases targetted for assault. They are assaulted sequential in the order they appear in the *Script Box*. Up to 64 bases can be defined.

Assault Units are the ground units involved in the assaults to capture the above **Assault Bases**. Generally all the units allocated will be used for every target except when a unit has been assigned as a *garrison*, in which case that unit will stop in that base upon capture. There can be up to 64 LCUs defined.

Typical scripts based in Asia or the sub continent can be long and have large numbers of units, including support units. However, for atoll invasion scripts the AI operates better if you do not overload the script with units and keep them small with rgt or divisions best. You do not want the AI trying to invade with support units only. This is less important in larger scale invasions of bigger land masses.

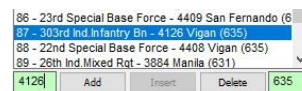
Air Groups Base are the airfields being used to base the *Air Groups Units* supporting assaults. Garrison unit may also be used. Up to 64 bases can be defined.

They must be friendly and with no enemy in hex and to be able to base the supporting air groups. AG will not transfer or be transported to the base if this is not the case.

Air Group Units are the air units being used to support the assaults. They are based on the above *Air Group Bases* above. The AI will move air units to each base as they become available and will NOT skip bases so great care is recommended in picking these bases as one base in the chain not available can result in no air support. Up to 64 bases can be defined.

Optionally, *Air Group Units* can be assigned as a garrison using *Assign to base*.

Defence Units units are the ground unit used to garrison bases once it has been captured and have no enemy in the hex. Both units and bases are required using the *ID* and *Assign to Base* Boxes.



From the image, you can see that you are not restricted to a single base within the script. You can use this script to send LCU to garrison areas of the map, in this case Luzon. Up to 128 LCU can be defined.

These bases can be any bases anywhere as long as they are friendly and no enemy in hex.

5.2. AI Data Script Attributes

The following fields can apply to all types of *AI Data Script* but some are more relevant than others.

Name is the name of the script.

Previous is used to chain scripts together. Before this script can become active, the previous script must be in defend mode or dead state.

Date Start is the date the script becomes active.

Note: Scripts only become active using one of the two methods above, not both. Entering anything into either field greys out the other.

Date End is the date the script will end.

Cmd HQ is the ID of the HQ in overall command of the operation.

Air HQ is the ID of the Air HQ in overall command for air forces. Is it best if the Air HQ is also in the same command as the Cmd HQ?

Advance Base is the *Base ID* number of an advance base. This is the base the AI will use as a springboard for future offensives. It will try to gather combat forces, supplies, and fuel at this base if it intends to launch an offensive.

This is also the base where *Naval Scripts* will try to form TF's at and will move ships to in order to achieve this. If the *Advance Base* is forward make sure you assign a fighter Sqn or two to garrison it.

Airborne OK indicates use AB units and transports can be use if available.

Rear Guard causes the script to re-activate if any of the targets in the *Assault Base's* list are later occupied or owned by the enemy provided the script is not dead due to end date.

Trigger Base is a base that if captured by the enemy cause the script to die. If the assault trigger is also checked then the script will die when base is captured by friendly units. When a script dies no garrison units will deploy under that script.

For atoll invasions it is often better to have a separate garrison only script without a *Trigger Base* and a sequence of small atoll invasion scripts. The AI is NOT exempt from atoll stacking rules and therefore the script designer must take this into account in his scripting.

5.2.1. Naval Support

Naval Support allows you to set up to three naval task forces TFs. Each of which can have their own set of instructions.

Naval support can be defined solely or can be used to support any script. The AI uses naval support as defined when a script is in either an *Active* or a *Defend* state and will continually try to fulfil the requirements of the script while they are. This makes **Naval Support** tricky to use effectively. Often it is better to have separate parallel naval only scripts with a trigger base that will move the script to Dead when a base is captured.

E.g. You do not want a naval bombardment TF attempting to operate when attacking bases like Mandalay but may want them for an invasion of Rangoon. Therefore unless the combined arms script only targets coastal bases you are often better to have an Air/Ground script covering all objectives and a parallel naval script that has a trigger base of Rangoon and will therefore end when that base is captured.

Mission determines the type of mission you want this TF to carry out. For *assault*, *air group* or *defence* scripts transport TFs are automatically built to move the units involved so you do not need to specify these types. Normally you will want to build combat TFs to patrol certain areas of the map.

Amphib Lead is used to specify that any troop/amphib TFs that are built in this script will follow this combat TF.

Dest ID specifies the ID number of the target destination base ID and or routing to build the TF. You can also **Use Current Assault Target** check box which will set the TFs target to that of the script it is in.

Routing is optional and defines possible path/movement options such as '*Follow*' which will follow the indicated TF, '*Waypoints*' which will traverse up to three **x/y coordinates** plus destination ID or '*Patrol*' which will continually 'patrol' a given area using up to three x/y coordinates until TF needs fuel or ammo or is damaged, in case it will return to refuel etc.

Sz Opt/MinMax Opt are build options that determine the size of the TF. The default is *normal/normal* however you can specify particular build options based on the below charts. In these charts *Avg* means average, (normal if you will).

Air Combat TF

Size	Normal			Large			Small			Special		
Options	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
Fleet Carrier	3	2	1	4	3	2	1	1	1	1	1	
Light Fleet Carrier	1*	1*		1*	1*					1		1
Battleship	1			2	1							
AA Cruiser	4	4	1	6	4	4	2	2		1	1	
Destroyer	8	6	3	12	8	6	4	3	2	4	3	1

1* = One CVL is added to each TF if the number of CV/CVB available is two or more.

For the Kido Butai there are special build options for *normal* or *large* TFs unless the Min option is. If the port contains operational ships equal to a significant portion of the Carrier Fleet, the Kido Butai will be auto built with:

- 4-to-6 CV
- 1-to-2 Fast BB
- 1-to-2 AA Cruiser
- 1 CL
- 8-to-10 fast DD.

CVE Escort Air TF

Size	Normal			Large			Small			Special*		
Options	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
Escort Carrier	4	3	1	6	4	2	2	1	1			
Sea Plane Carrier										2	1	1
Cruiser				1	1							
Destroyer	4	2		4	4	1	1	1		1	1	
Large Escort	4	3	2	6	4	3	2	1	1	3	1	1

* Special TFs only used for Sea Plane Carrier TFs selecting CS or BB/CA with more than 10 aircraft.

Surface Combat TF

Size	Normal			Large			Small			Special*		
Options	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
Battleship	2			4	2	1						
Cruiser	6	4	2	6	4	2	2	1				
Destroyer	8	6	4	8	6	4	2	2	1			
Large Escort							2	2	1	1		
Surface Escort										2	1	
Small Escort										8	4	2

* Special TF is used for 'light forces' surface combat TFs. E.g. with no BBs.

Bombardment

Size	Normal			Large			Small			Special*		
Options	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
Battleship	2	2		4	2	2						
Cruiser	4	2	1	4	2	2	2	1				
Destroyer	6	4	1	6	4	4	2	1				
Large Escort	2		1	2			2		1			
Surface Escort							2		1	1		
Small Escort										3	2	1
Fire Support Ship										8	4	2

* Special TF is used for Amphibious Fire Support TFs.

PT Task Force

Size	Normal			Large			Small			Special*		
Options	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
PT	6	4	2	12	10	8	3	2	1	4	2	1
Coastal Gunboat										4	2	1

* Special TFs use combined PT/MGB.

ASW TF

Size	Normal			Large			Small			Special		
Options	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
Destroyer				4	3	2						
Large Escort*	4	3	2									
Small Escort							4	3	2			
Local Patrol										4	3	2

* If there's not enough 'Large Escort' types available, 'Small Escort' will be used instead.

Minelayer

Size	Normal			Large			Small			Special**		
Options	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
Minelayer	3	1	1	3	2	1				4	3	1
Coastal Minelayer*							1	1	1			
Destroyer				1						2		
Surface Escort	1			2	1	1						
Large Escort	1	1		2	1		1					
Small Escort							1					

* Coastal Minelaying TFs may include ACMs of 500 tons or less.

** Special Minelaying TFs escorted by destroyer(s) will attempt to select DMs as the minelayers. No coastal minelayers (CMc) will be used.

Note: The original men says Coastal Minelayer (CMc) are not define etc. This is incorrect so the note is probably wrong regarding ACM.

Minesweeper

Size	Normal			Large			Small			Special**		
Options	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
DMS	4*	2*	1*	4	3	2						
Minesweeper	4*	2*	1*				3	2	1			
Surface Escort	2											
Small Escort	2											
YMS										4	2	1

* Normal Minesweeper TFs will not mix sweeper types. They will use either DMS or AM based on ship availability.

** Special TF use only YMS to utilize the small size and good range of these ships.

Local Minesweeper

Size	Normal			Large			Small			Special*		
Options	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
Local Minesweeper	3	2	1	6	5	4	3	2	1			
Auxiliary Minesweepers										3	2	
Local Patrol	1			4	2	1						

* Only AMc used in Special Minesweeping TFs.

Sub Patrol

Size	Normal			Large*			Small			Special**		
Options	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
Patrol Submarine	1	1	1	4	3	2	1	1	1	1	1	1

* Large TFs can be used to form Wolf Packs.

** Special TFs will only use defensive subs (small or short ranged).

Sub Minelaying

Size	Normal			Large			Small			Special*		
Options	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
Minelaying Submarine	1	1	1	4	3	2	1	1	1	1	1	1

* Special TF are limited to "true" minelaying submarines. This excluding those that load mines into torpedo tubes in place of torpedoes.

Sub Transport

Size	Normal			Large			Small			Special		
Options	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
Submarine*	1	1	1	4	3	2	1	1	1			
Transport Submarine**										4	1	1

* Submarines TFs must have cargo capacity.

** Transport Submarines can be substitute for “regular” submarines but not vice versa.

Midget Sub

Size	Normal			Large			Small			Special		
Options	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
Midget Submarine	2	1	1	4	4	2	1	1	1	1	1	1

Midget Sub Carrier

Size	Normal			Large			Small			Special		
Options	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min
Midget Sub Carrier	1	1	1	1	1	1	1	1	1	1	1	1
Midget Sub	1	1	1	1	1	1	1	1	1	1	1	1

Operational code will not currently support more than one set of carrier/midget subs.