

# **Estab Editor Manual**

written by

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# Introduction

Welcome to the Command Ops 2 (CO2) Estab Editor. The Estab Editor is used to create and modify CO2 estabs. You can also use it to access data about the estab objects - forces, weapons, vehicles, ammo etc.

Estabs are generated in a two step process. First you edit an estab.xml file in the Estab Editor. Then you compile the estab.xml file into a binary estabs.coe file that is used by the Cmd Ops Game and ScenMaker apps. The .xml file is compiled by a separate app called the Estab Manager. You can initiate the compile from within the Estab Editor. It will open the Estab Manager in the background, run the compile and close the Estab Manager automatically. Alternatively, you can run the Estab Manager directly.

The Estab Editor is a standard Windows type application with a menu bar at the top. This includes the standard File menu that allows you to open, close, create new estab.xml files, save and save as existing estab.xml files.

This manual is organised along functional lines and in a sequence that most users will employ when creating/editing the estabs. If you want to know how to do a specific thing, look up the table of contents.

## What's in this Manual

This manual is organised in two parts – the Basics and the Guide. The Basics provides an overview of the user interface. The Guide walks you through the steps for creating and modifying estabs. If you want to know how to do a specific thing, look up the table of contents.

## What Makes an Estab

An Estab contains common or generic data used by a class of entities. Eg an EstabForce, such as a US Inf Company contains the data common to all units of that type. There are four broad Estab classes:

**Forces** – These comprise Side, Nation, Service and Force ( or Unit ).

**Equipment** - These comprise Vehicles and Weapons.

**Ammo** - Eg 81mm mortar High Explosive, 9mm ball.

**Formations** – These control the parameters and effects of the various formation types - eg road column, line, arrowhead etc.

# The Basics

## Estab Files ( IMPORTANT )

As mentioned above, there are two types of estab files - the raw.xml and the compiled .coe files. When you create a scenario in the ScenMaker you link a specific .coe file to it. There can only be one estab.coe file per scenario. So, while you can create a new estab file from scratch, it is recommended instead that you clone the existing CO Estab.xml file and edit it - ie. load the existing .xml file and do a SaveAs, naming it something different. That way you will start with all the pre-existing estab data, rather than having to reinvent the wheel.

Further, it is strongly recommended that you do not edit existing data objects, but instead clone them and edit the clones. That way your modified estab file can still be used to run the standard scenarios. Strictly speaking, this is not essential so long as you retain the original CO Estabs file. However, it is recommended practice.

Also in the ScenMaker application you can migrate the estab file being used by a scenario to another estab file. See the ScenMaker Manual for more details.

## Getting Started

First things first.

### Launch EstabEditor

To launch the EstabEditor application:

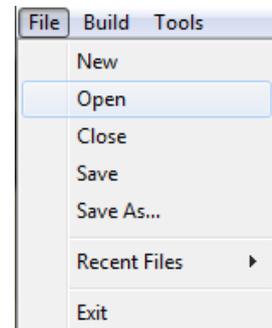
- ☞ Select the EstabEditor program from the Start\Programs\Battles from the Bulge menu or
- ☞ Double-click the EstabEditor application icon in the game directory



### Open Estab.xml file

To open an Estab.xml file:

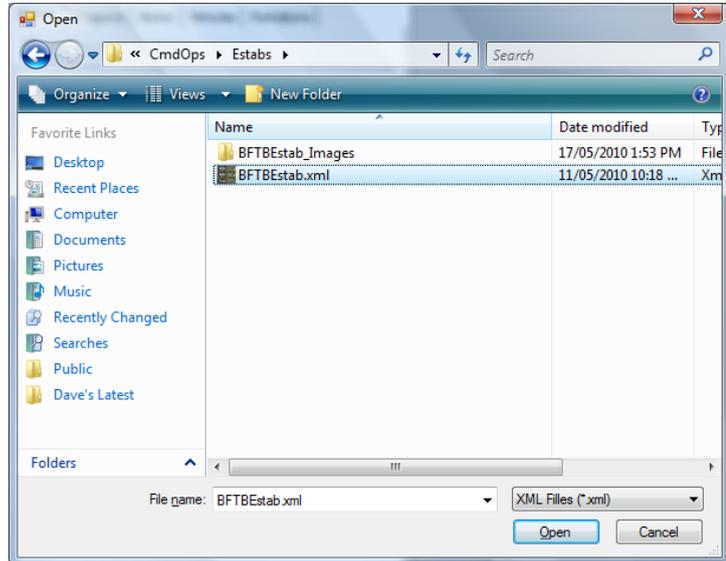
- ☞ Select Open from the File menu



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This will open the Open window displaying a list of map files within the Map directory, which is part of the Game directory.

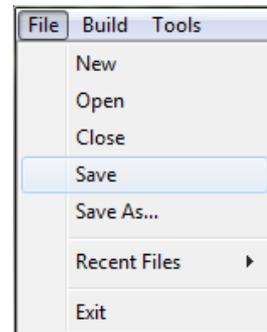
- ☞ Select the desired .xml file from the list
- ☞ Click on the Open button



### Save Estab.xml file

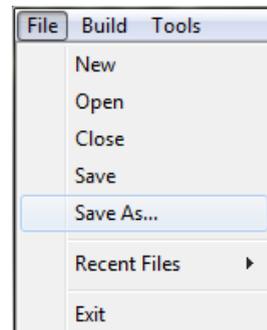
To save an Estab.xml file under the same name:

- ☞ Select Save from the File menu



To save the Estab.xml file under a different name:

- ☞ Select Save As... from the File menu



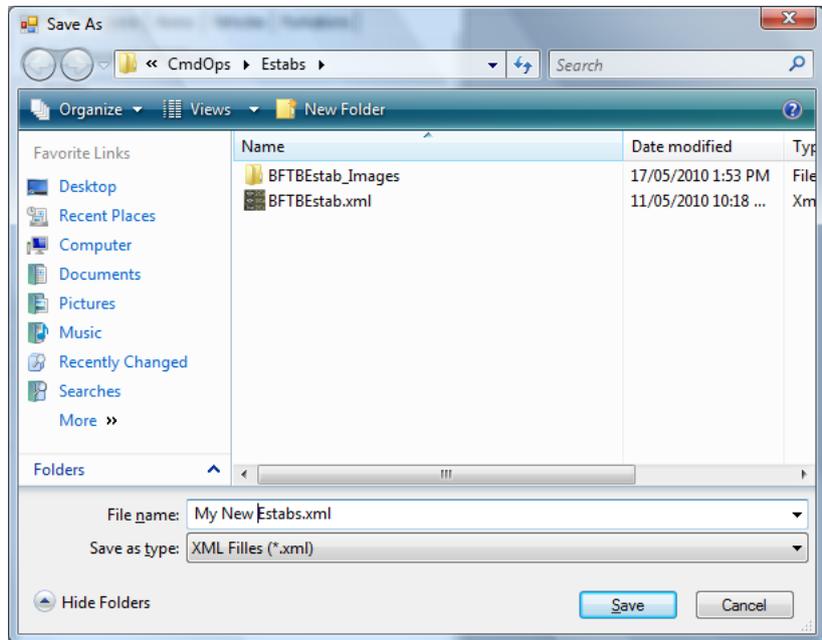
**IMPORTANT** make sure that the new Estab.xml file is saved under the CO|Estabs directory. Otherwise it won't be accessible to the CmdOps game app.

This will open the Save As window displaying a list of estab files within the Estabs directory.

☞ Enter the desired name

☞ Click on the Save button

**Note avoid saving over the top of the original CO Estabs.xml file provided. It is recommended that after opening this file, you do a Save As and give it a different name before modifying it.**

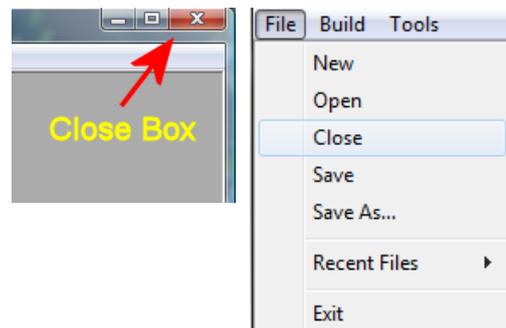


## Close Estab.xml file

To close an Estab.xml file:

☞ Select Close from the File menu or

☞ Click on the Close Box at the top right of the EstabEditor window

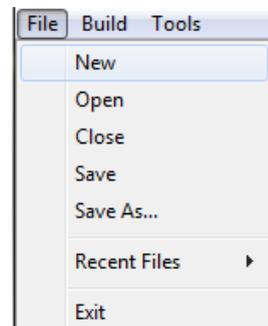


## Create a New Estab.xml file

To create a new Estab.xml file:

☞ Select New from the File menu

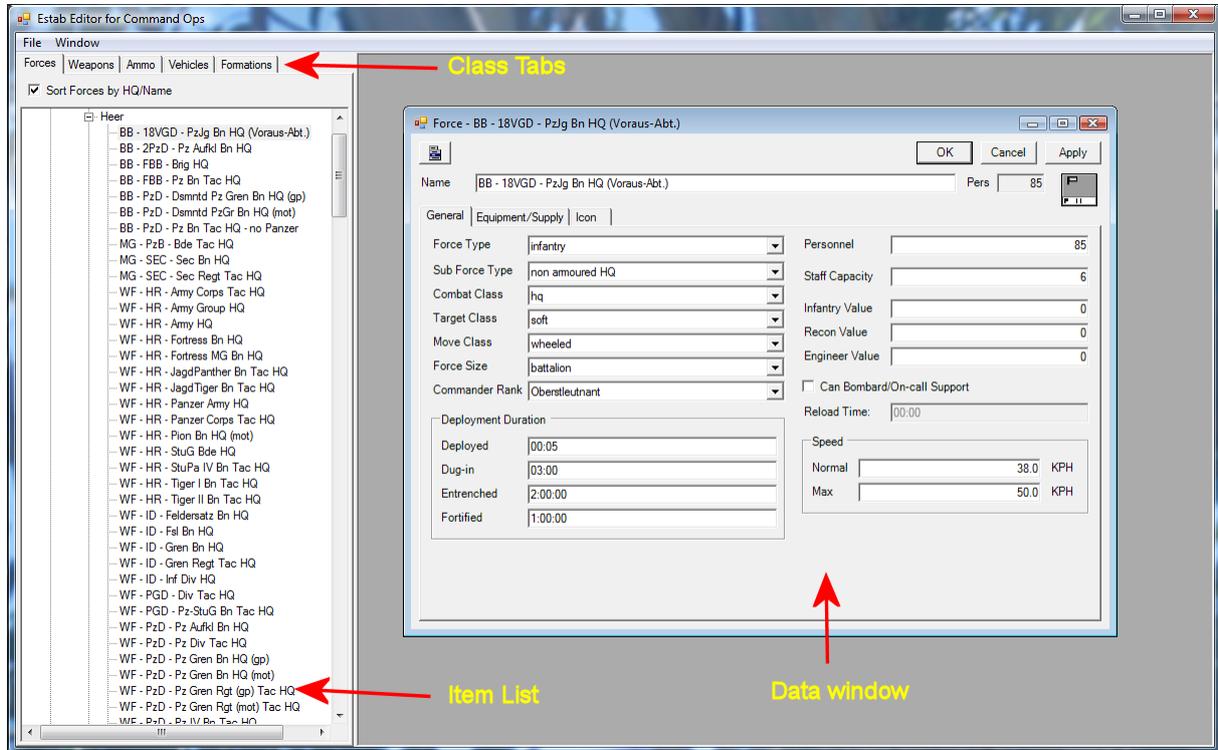
**WARNING - IMPORTANT - Creating a new Estab.xml file is not recommended. Instead clone an existing Estab.xml file. See Estab Files above.**



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## The User Interface – A Quick Tour

With an Estab.xml file open, the main screen displays a menu bar at the top, a sidebar on the left and a workspace on the right into which various data windows are opened. The sidebar comprises a set of class tabs used to change the content of the item list.

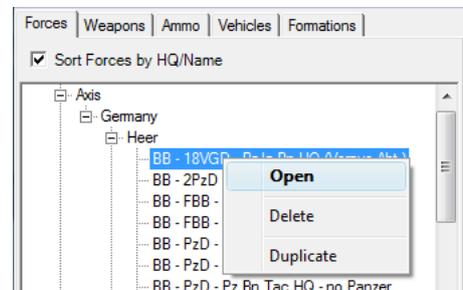


The Weapons, Ammo, Vehicles and Formation listings are simple lists with a series of items one after another. The Forces listing is a tree list starting with the Side estabs, under which are nested the Nation estabs, under which are the Service estabs, under which are the individual force or unit estabs.

### Open

To **open** the data window for a particular item:

- ☞ Double-click the item in the list or
- ☞ Right click and select Open from the context menu. (Does not apply to formation items.)



### Expand/Collapse

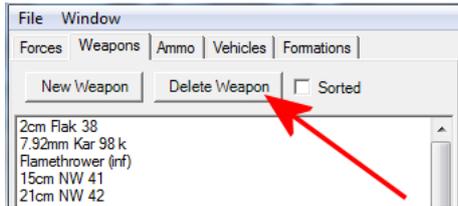
To **expand/collapse** a node in the Forces tree list:

- ☞ Click on the +/- box to the left of the node.

### Delete

To **delete** an item from the list:

- ☞ Right click and select Delete from the context menu or
- ☞ Hit the Delete Weapon/Ammo/Vehicle button in the toolbar below the tabs.



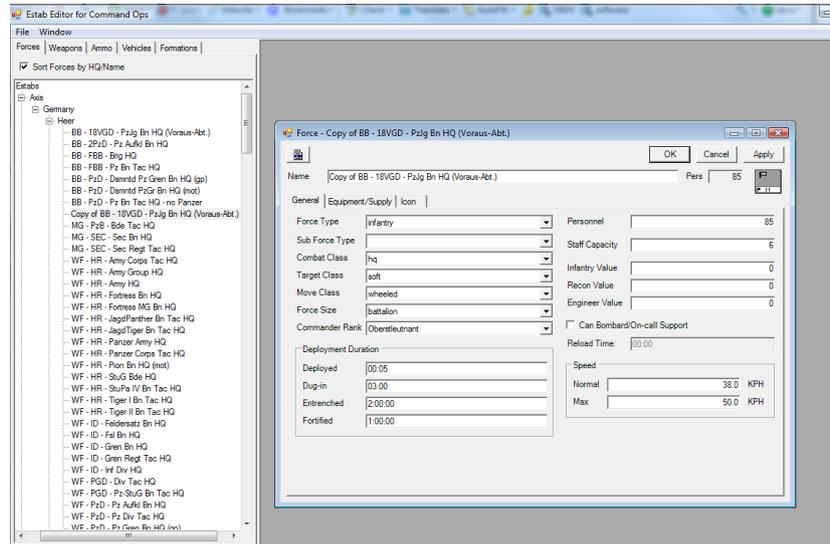
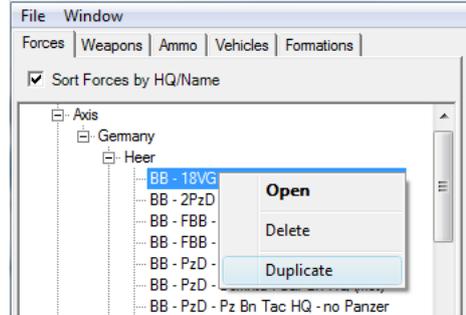
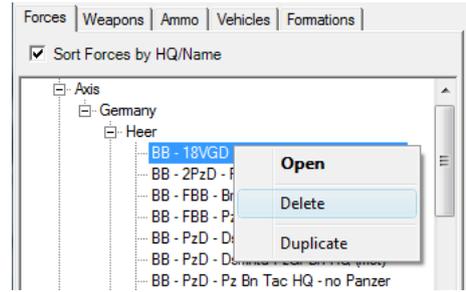
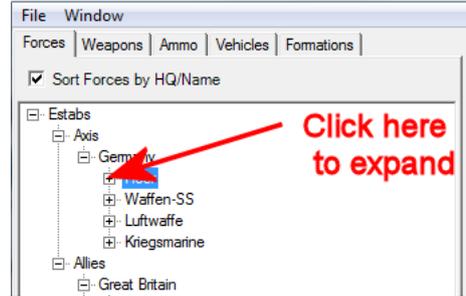
### Duplicate

To **duplicate** an item from the list:

- ☞ Right click and select Delete from the context menu.

This will open a new data window for the item duplicating all the data from the original item and prefixing the name with "Copy of".

- ☞ Rename.
- ☞ Edit the data
- ☞ Hit OK.

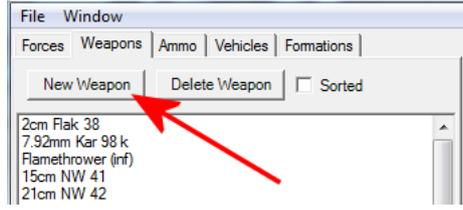
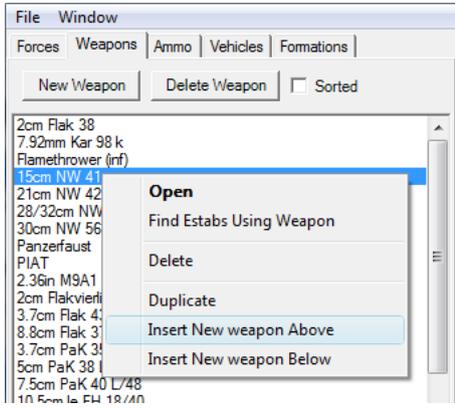


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## New

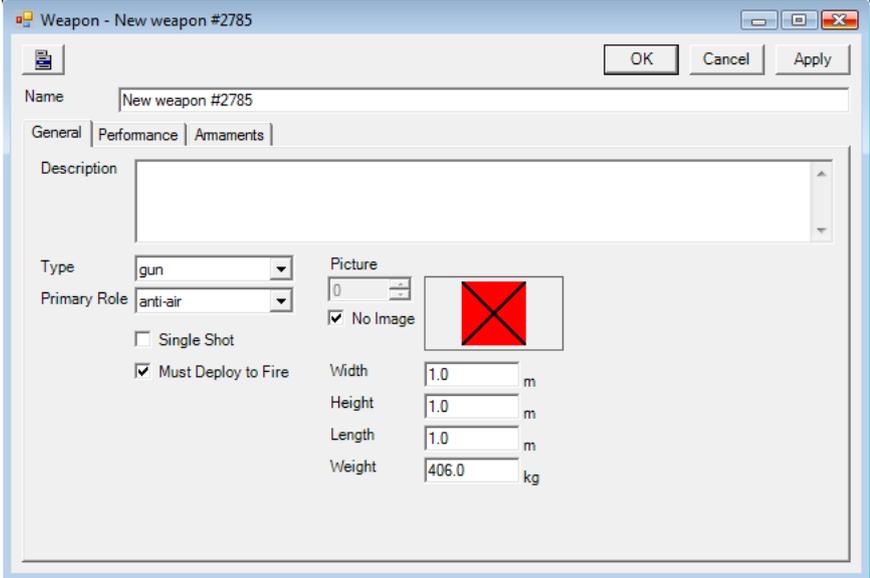
To create a **new** weapon, ammo or vehicle item:

- ☞ Right click and select Insert New item Above from the context menu or
- ☞ Hit the New Weapon/Ammo/Vehicle button in the toolbar below the tabs.



This will insert a new item in the list above the one you selected and open a new data window with a default name.

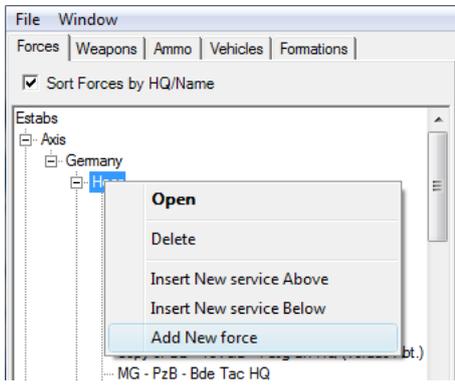
- ☞ Rename.
- ☞ Edit the data
- ☞ Hit OK.



To create a **new** side, nation, service or force:

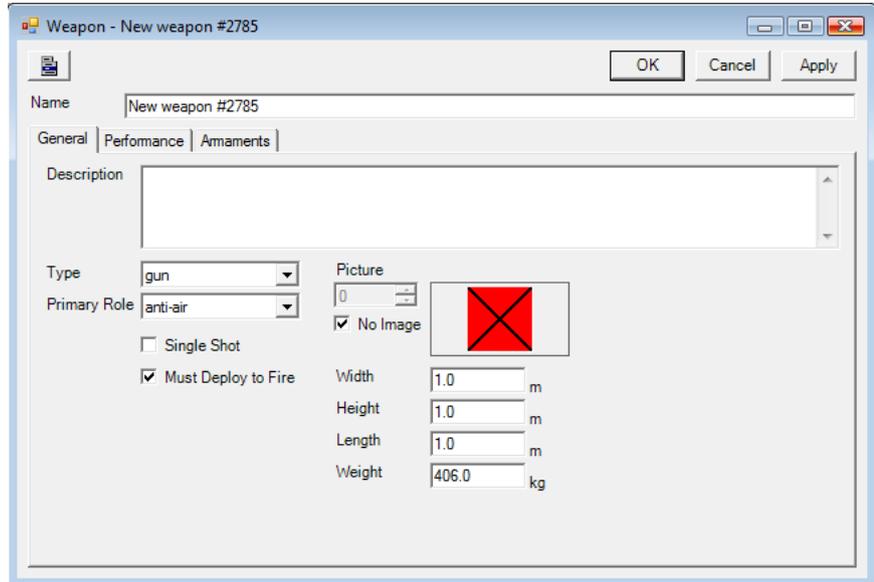
- ☞ Right click the parent and select Insert New item from the context menu.

Eg. to create a new unit for the German Army, select the German Army service ( ie Heer ).



This will insert a new item in the list below the last child of the parent you selected and open a new data window with a default name.

- ☞ Rename.
- ☞ Edit the data
- ☞ Hit OK.



Note you cannot create new formations, only edit existing ones. These are hard coded into the Game.

## Ranks

To add a new **rank** to a **Service**:

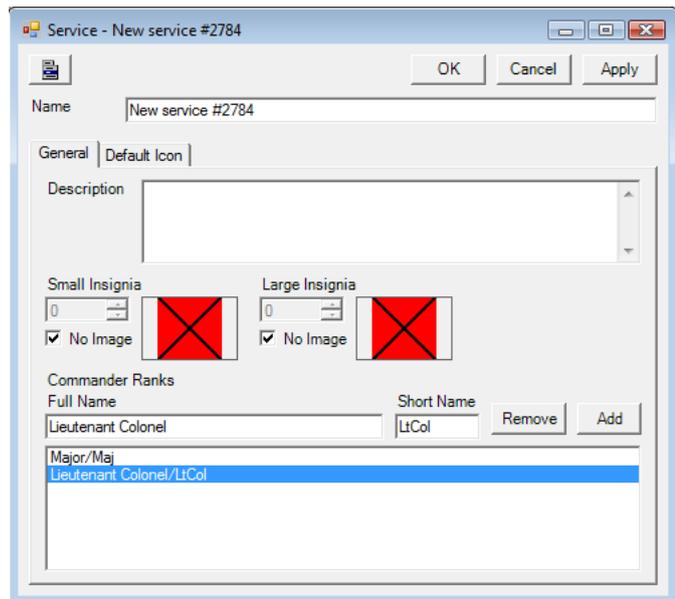
- ☞ Hit the Add button and enter the desired Full Name and Short Name

To edit a rank to a Service:

- ☞ Select the desired entry in the list and re-enter the desired Full Name and Short Name

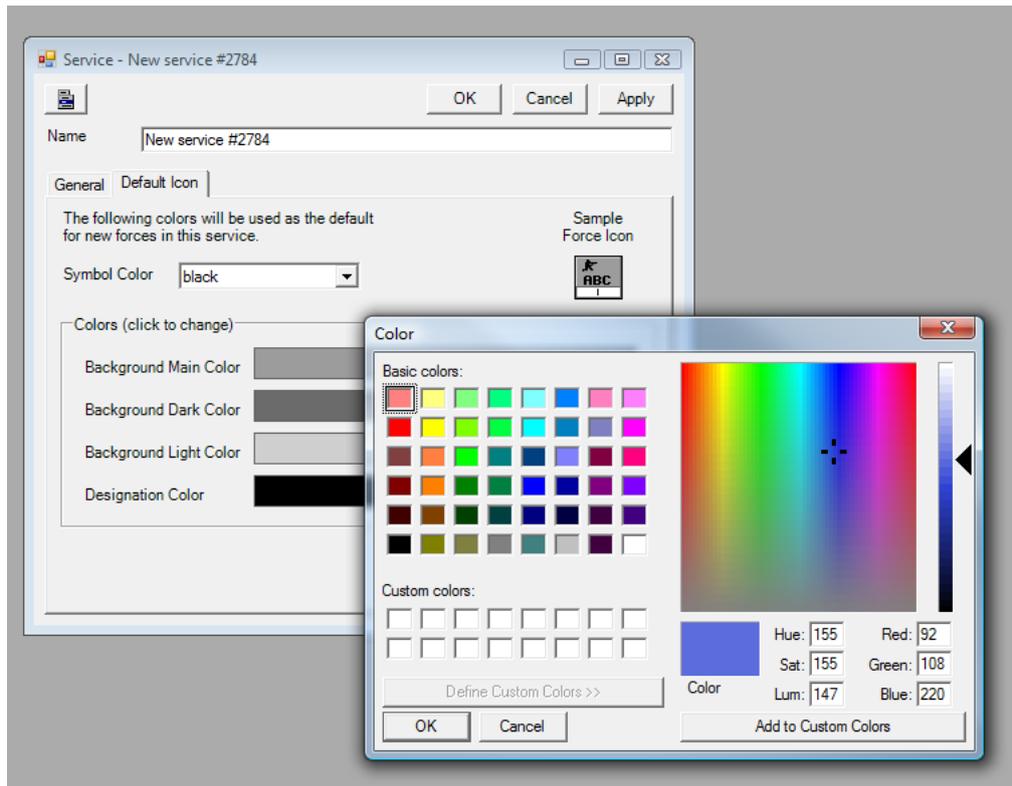
To delete a rank to a Service:

- ☞ Select the desired entry in the list and hit the Remove button.



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### Colors



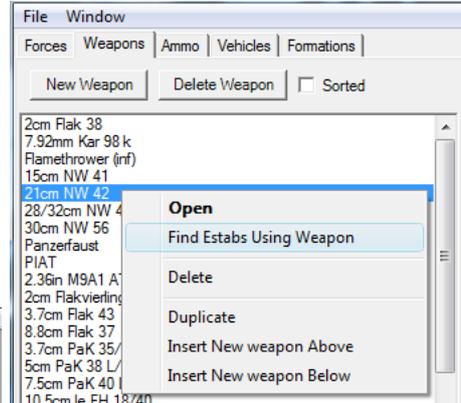
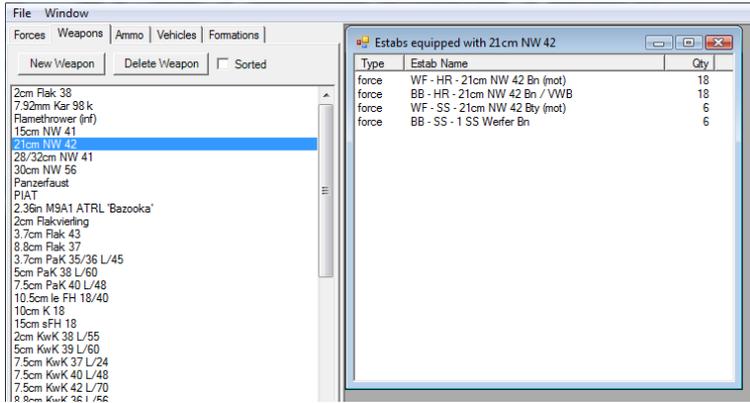
To set the **colors** of the default icon for a **Service**:

- ☞ Select the desired Symbol Color - either black or white.
- ☞ Click on a color bar to open the color picker screen
- ☞ Either click on a basic color patch, a custom color patch, the colour spectrum or specify the RGB or HSL values
- ☞ Hit OK

**Find**

To **find** the force estabs that use the selected weapon, ammo or vehicle:

☞ Right click and select Find Estabs Using Weapon/Ammo/Vehicle from the context menu.

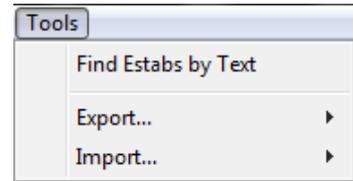


This will open a listing of the found force estabs.

☞ Double-click an item in the list to open its data view.

To **find** an estab containing a specified text:

☞ Select the Find Estabs By Text item from the Tools menu.



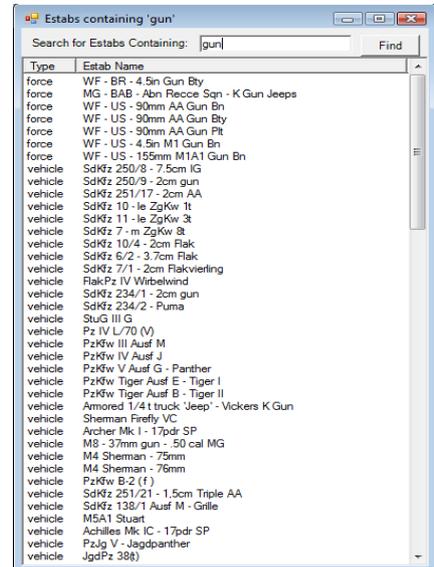
This opens the search window.

☞ Enter the desired text in the Search for Estabs Containing field.

☞ Hit the Find button.

This searches all estab classes and populates the list with any estabs that contain the text either in any of their fields.

☞ Double-click an item in the list to open its data view.



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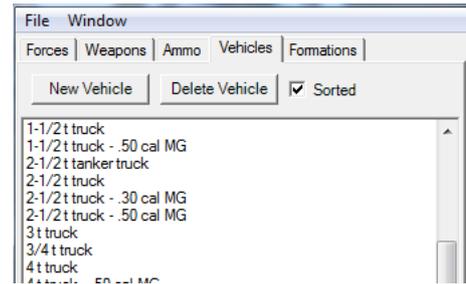
### Sort

To **sort** the Weapon/Ammo/Vehicle lists alphabetically:

- ☞ Check the Sorted box below the tabs.

To sort the Weapon/Ammo/Vehicle lists by order of entry:

- ☞ Uncheck the Sorted box below the tabs.

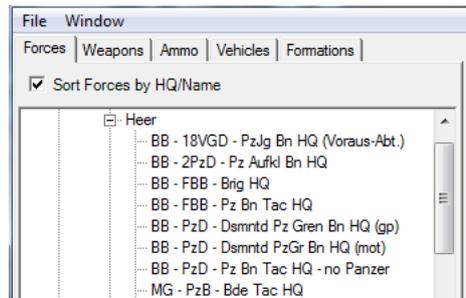


To **sort** the force estabs by HQ and alphabetically:

- ☞ Check the Sort Forces by HQ/Name box.

To sort the force estabs by order of entry:

- ☞ Uncheck the Sort Forces by HQ/Name box.

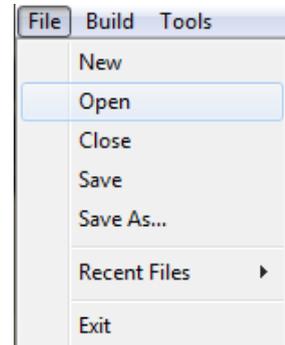


## Menus

The menu bar is at the top of the window and consists of the following menus.

### File

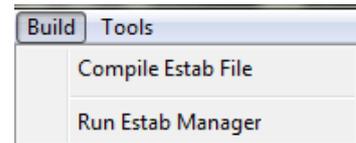
Provides standard Windows application File menu features – New, Open, Close, Save, Save As, recent files and Exit.



### Build

The Build menu has items to Compile Estab File and Run Estab Manager.

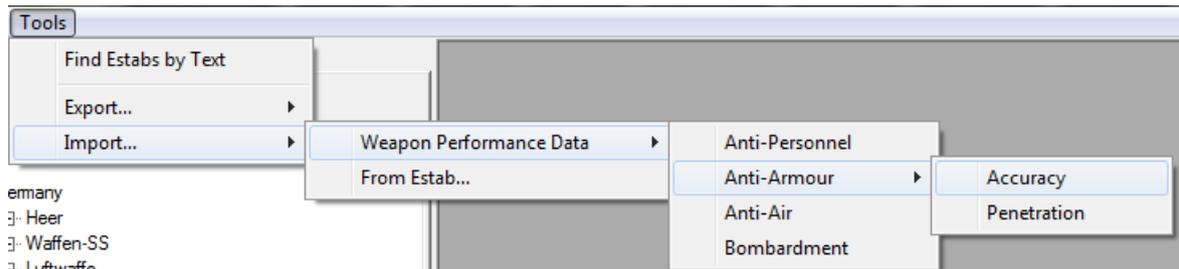
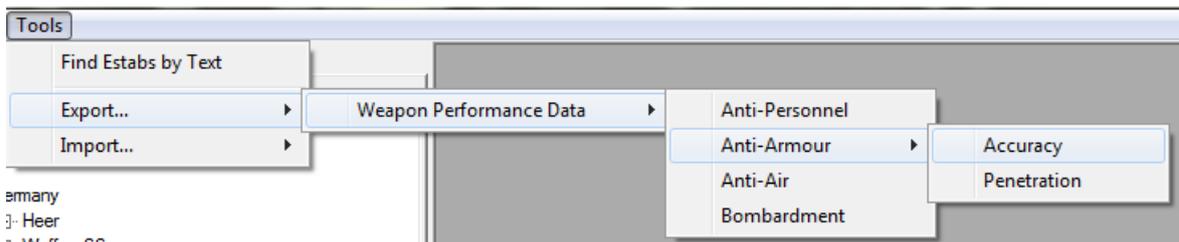
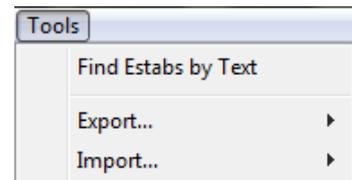
**Compile Estab File** compiles the estab.xml file into the binary .coe file that the Cmd Ops game app uses. It does this by launching the Estab Manager app in the background and closing it automatically once it has completed the compile.



**Run Estab Manager** opens the Estab Manager application. This is a stand alone app whose prime function is to compile the estab .xml file into the binary .coe file used by the Cmd Ops game app. It can also import/export .xml files to and from the .coe file. This is a tool that you don't need to use directly. Instead you can simply use the Compile Estab File menu item.

### Tools

Provides the **Find Estabs by Text** item, which opens a find window, and the **Export...** and **Import...** item which allow you to export and import Weapon Performance data to and from a spreadsheet file.

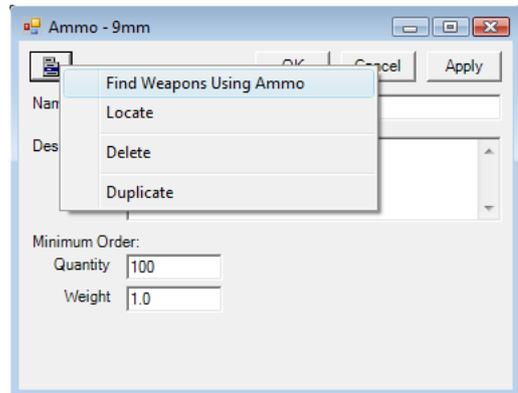


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### Data View Menu

Each of the Data Views has a menu. To access it:

☞ Click on the Menu icon



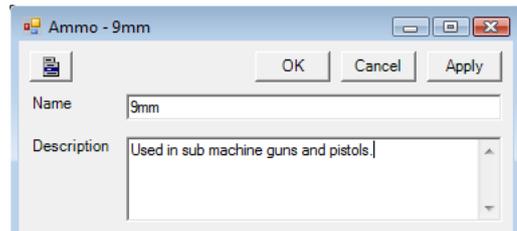
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## Entering Data

All data views have a Menu icon - see Data View Menu - an OK, Cancel and Apply buttons. The OK button saves and closes the view. The cancel closes the view without saving and changes and the Apply saves without closing.

**Name** - All estab items have a Name. While you can use whatever name you like we recommend you keep them concise and follow the naming conventions where mentioned. If nothing is mentioned then refer to previous or existing entries for guidance.

**Description** - Ammo, Weapon and Vehicle estabs have a Description field. Here you can ad lib with whatever you like. This will appear in the description field of the estab data views in the game. It does not have any direct effect on the game mechanics. Rather its purpose is to inform the user.



Note that not all data fields appear in the estab views of the game. However, they are still important.

If you do not have a reliable source for the data, then use a similar existing entry as a guide.

Note that decimal values may be rounded or adjusted by the program. Eg entering 1.0 may end up being displayed as 1.000123. Don't worry if minor adjustments to the value are made like this. It's all good.

We are going to start with the basic elements first - ie ammo. Then we'll work our way up addressing weapons, vehicles, forces and formations.

## Estab Images

Weapons and Vehicles can use an Estab Image file as a representation within the game. These must be in the .bmp format and measure no more than 100 x 60 pixels. Each image must be stored in its own file using the naming convention: "Estab\_Image\_#####.bmp". Eg "Estab\_Image\_03182.bmp". Each must have a unique file name. It is recommended these are numbered in sequence.

Each Estab file must have its own Estab Images directory containing all the image files. The images directory must be named the same as the .xml file but appending "\_Images". Eg If you save the .xml file as "MyEstabs.xml" then you must save the images directory as "MyEstabs\_Images".

**Make sure that the associated images directory is located under the COEstabs directory.**

**When you clone the original COEstab.xml file, also clone the COEstab\_Images folder.**

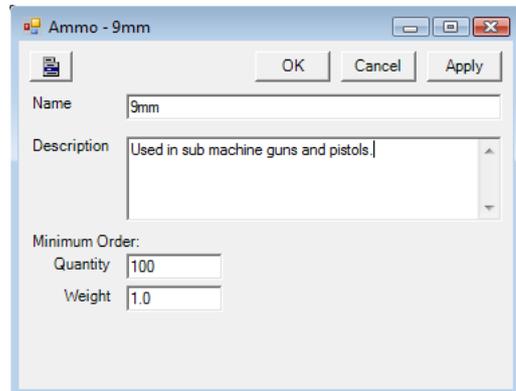
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## Ammo

Apart from the Name and Description there are just two fields.

**Minimum Order Quantity** - The minimum number of rounds that can be delivered when resupplying. Effectively and amount requested is rounded up to this figure.

**Weight** - The weight in kilos of the Minimum Order Quantity.



The screenshot shows a window titled "Ammo - 9mm". It has a Name field containing "9mm" and a Description field containing "Used in sub machine guns and pistols.". Below these are two input fields for "Minimum Order:" with "Quantity" set to "100" and "Weight" set to "1.0". The window includes "OK", "Cancel", and "Apply" buttons.

## Weapons

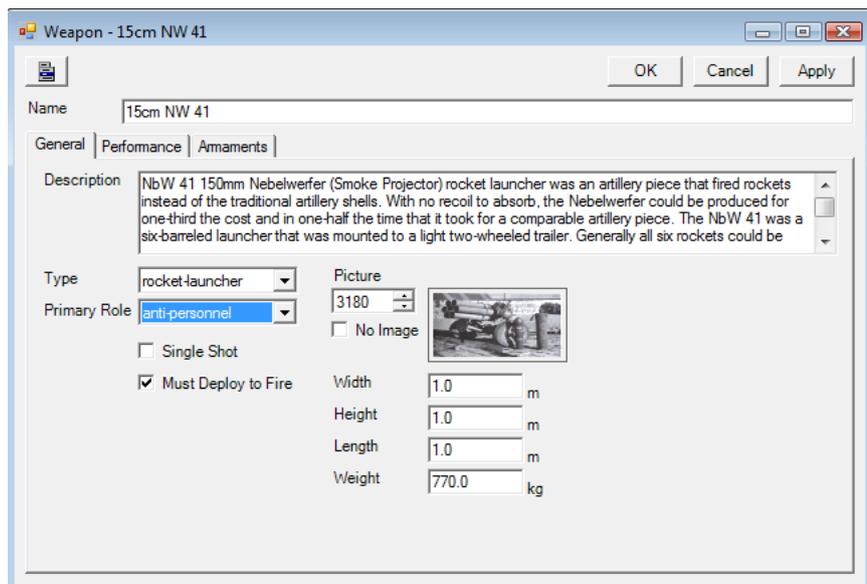
### General Tab

**Type** - Choose from the drop down menu.

**Primary Role** - Choose from the drop down menu.

**Single Shot** - Check if this weapon is used up after firing - eg single shot rocket launchers like a panzerfaust.

**Must Deploy to Fire** - Check for all weapons that need to spend time deploying before they can fire. Eg. Hvy machine guns, AT weapons, mortars, artillery.



The screenshot shows a window titled "Weapon - 15cm NW 41". It has a Name field containing "15cm NW 41". Below the Name field are three tabs: "General", "Performance", and "Amaments", with "General" selected. The Description field contains a detailed text about the "NbW 41 150mm Nebelwerfer (Smoke Projector) rocket launcher". Below the description are two dropdown menus: "Type" set to "rocket-launcher" and "Primary Role" set to "anti-personnel". There are checkboxes for "Single Shot" (unchecked) and "Must Deploy to Fire" (checked). To the right, there is a "Picture" field with a dropdown set to "3180" and a "No Image" checkbox (unchecked). Below these are four input fields for dimensions: "Width" (1.0 m), "Height" (1.0 m), "Length" (1.0 m), and "Weight" (770.0 kg). The window includes "OK", "Cancel", and "Apply" buttons.

**Width/Height/Length and Weight** - the dimensions in metres and weight in kilos.

**Picture** - The ID of the Estab Image file located within the associated Estab Images folder - see Estab Images above.

**No Image** - Check if there is no image file for this weapon.

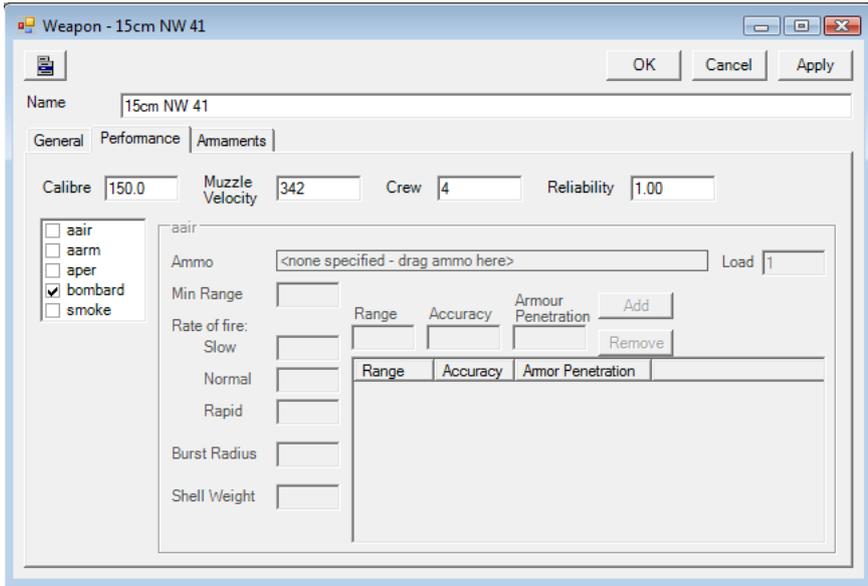
## Performance Tab

**Calibre** - the inside diameter of the barrel in millimetres.

**Muzzle Velocity** - how fast the round is moving on leaving the barrel in metres per second.

**Crew** - how many personnel that normally operate the weapon.

**Reliability** - a percentage measure of how mechanically reliable the weapon is, where 1.00 = 100%. This value affects the probability of the weapon firing at any given fire event.

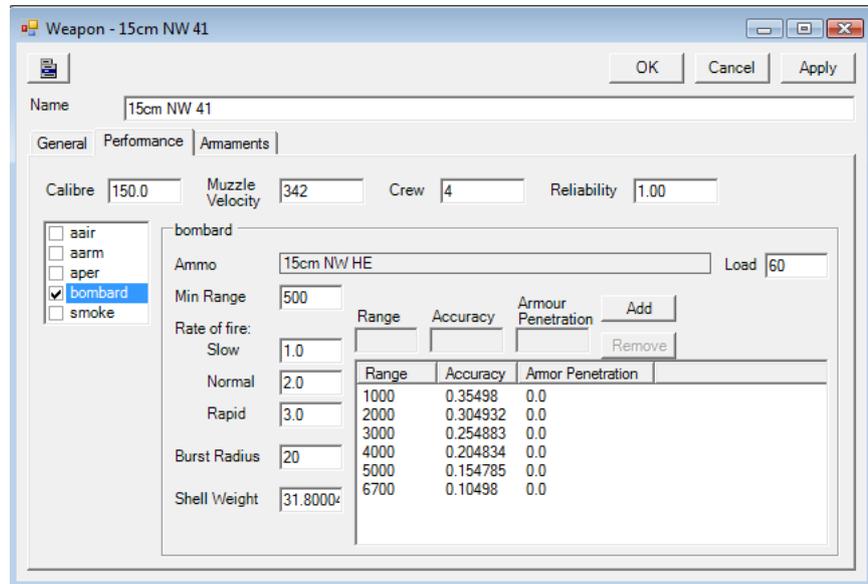


**Fire Types** - Check the different fire types if the weapon is normally used for this type of fire. aair = anti aircraft, aarm = anti armour, aper = anti personnel, bombard = indirect area fire. Note that smoke is currently not modelled, so leave unchecked.

To edit the data for a given fire type:

☞ Select the fire type from the list.

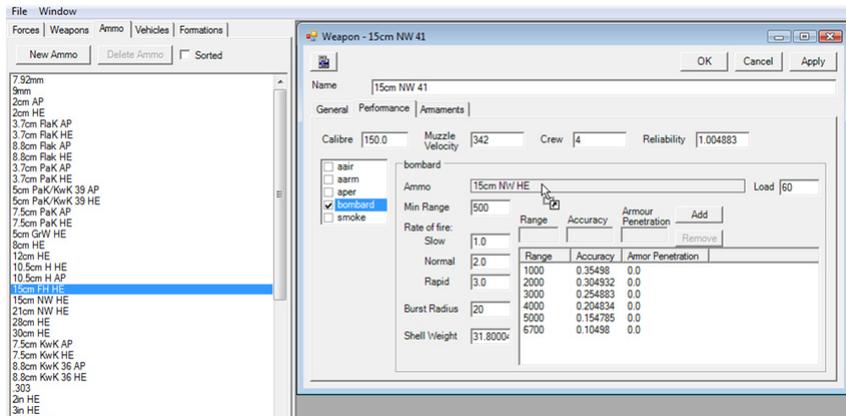
This will change the name in the performance group - eg to bombard.



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**Ammo** - The Ammo estab used by this weapon for this fire type. To set the Ammo estab:

☞ Drag the desired Ammo estab item from the Ammo tab list onto the Ammo field and release.



**Load** - The number of rounds stored at the weapon.

**Min Range** - The minimum distance in metres that the target must be from the weapon.

**Rates of Fire** - The number of rounds fired per minute at Slow, Normal and Rapid rates of fire. Please note that these are practical rates of fire not cyclical or theoretical rates of fire.

**Burst Radius** - The range in metres out to which significant fragments or shrapnel or blast occurs. Don't use safety blast ranges as these are significantly greater.

**Shell Weight** - The weight of the shell in kilos. This value is used to determine hit and kill probabilities.

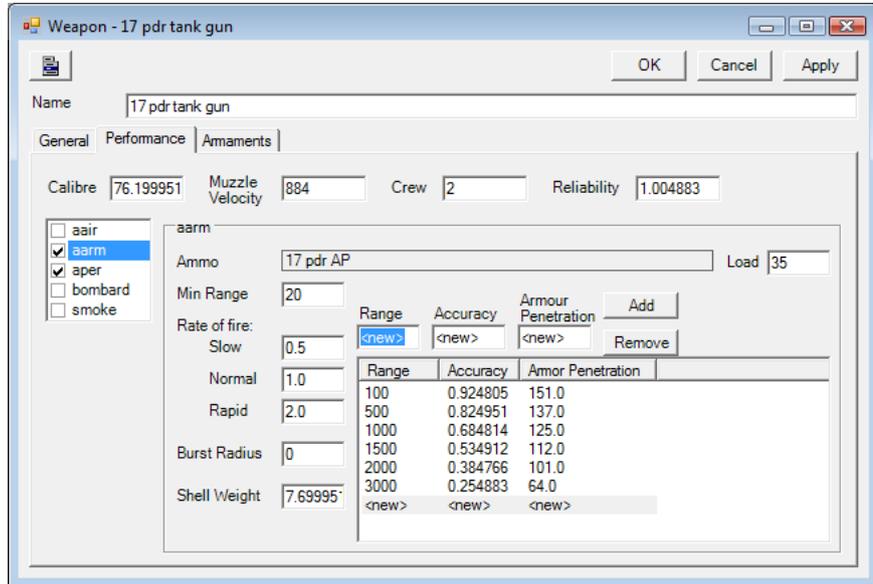
**Range Table** - Comprises three columns - **Range**, **Accuracy** and **Armor Penetration**. Range is in metres, Accuracy is a decimal where 0.35 = 35% and Armor Penetration is in millimetres of 30 degree sloped armour. Use practical ranges, rather than theoretical max ranges. Note that the AI will use this table to determine when a unit should fire. It does so by determining the unit's effective or ambush range ( depending on the task setting ). Effective range is that range at which it can achieve an accuracy of at least 33%. Ambush range is that range at which it can achieve at least 67%.

To enter a new row in the range table:

- ☞ Hit the Add button and enter the values in the three text entry fields above the table.

To delete a row from the table:

- ☞ Select the row and hit the Remove button.



## Armaments Tab

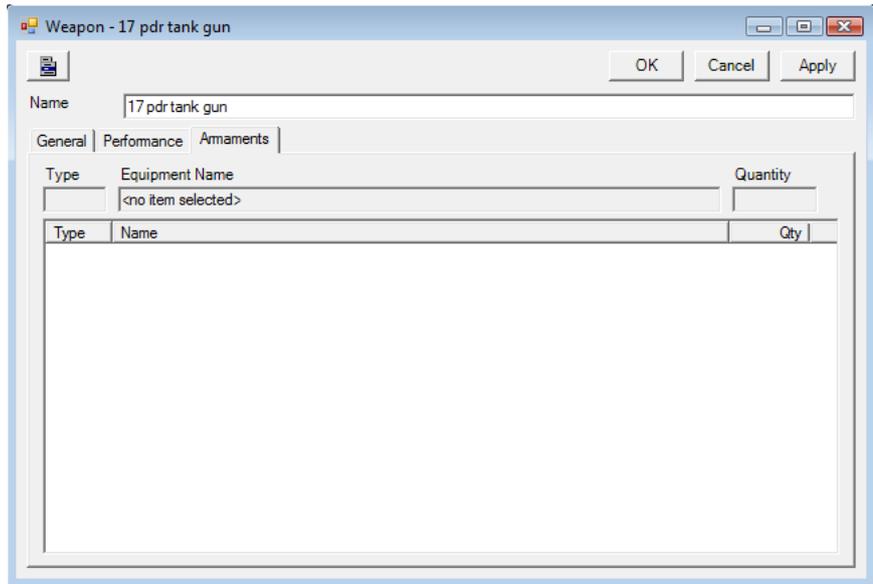
Armaments refers to any sub-weapons belonging to this item. Most weapons will not have any armaments of their own and hence the listing will be empty.

To add an armament:

- ☞ Select the desired weapon from the Weapons tab list, drag to the Equipment Name field and release and then set the desired quantity.

To delete an armament:

- ☞ Select it from the Armaments list and set the quantity to zero. It will be removed the next time you open the data view.



## Vehicles

### General Tab

**Type** - Choose from the drop down menu.

**Turret** - Check if this vehicle has a turret.

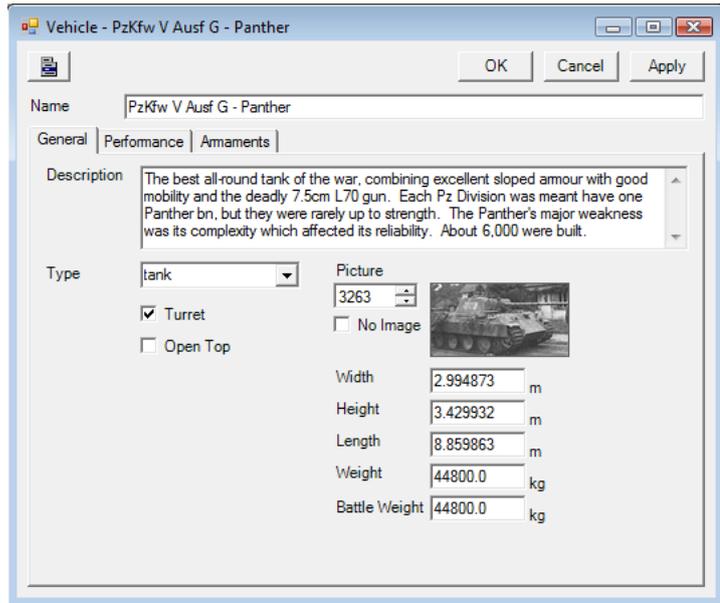
**Open Top** - Check if the top of the vehicle is open to the air - ie the crew are exposed.

**Width/Height/Length and Weight** - the dimensions in metres and weight in kilos.

**Battle Weight** - how much the vehicle weights in kilos when fully loaded with ammo, fuel and stores.

**Picture** - The ID of the Estab Image file located within the associated Estab Images folder - see Estab Images above.

**No Image** - Check if there is no image file for this weapon.



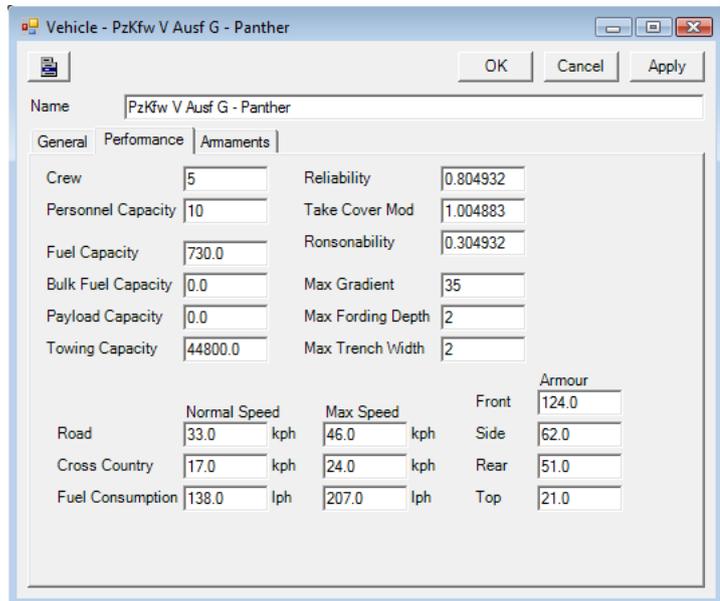
### Performance Tab

**Crew** - how many personnel that normally operate the vehicle. Must be at least one - ie the driver. Exclude passenger troops for motorised and mechanised infantry vehicles.

**Personnel Capacity** - the number of passengers that can be carried ( excluding the crew ).

**Fuel Capacity** - how much fuel in litres that the vehicle normally carries in its internal fuel tanks.

**Bulk Fuel Capacity** - how much fuel in litres the vehicle carries in external tanks or bladders.



**Payload Capacity** - how much cargo in kilos the vehicle can carry.

**Towing Capacity** - how many kilos the vehicle can tow or pull.

**Reliability** - a percentage measure of how mechanically reliable the vehicle is, where 1.00 = 100%. This value will be used for determining vehicle breakdowns, when this modelled in the engine.

**Take Cover Mod** - the percentage modifier applied to the hit probability when the vehicle is deployed ( eg hull down ) and being fired at.

**Ronsonability** - percentage chance of the vehicle catching fire after being hit by direct/indirect fire.

**Max Gradient** - the maximum slope measured in degrees that the vehicle can traverse

**Max Fording Depth** - the maximum depth of water measured in metres that the vehicle can traverse

**Max Trench Width** - the maximum width in metres of any trench or gap that can be traversed.

**Speed** - comprises two columns ( **Normal Speed** and **Max Speed** ) and three rows ( **Road**, **Cross Country** and **Fuel Consumption** ). Speed is in kilometers per hour and consumption in litres per hour. These are practical rates not theoretical rates.

**Armour** - the amount of hardened armour plate on the Front, Side, Rear and Top measured in millimetres at 30 degree slope. Note that where the vehicle has a turret and a hull these reflect an average of the turret and hull armour plate for that aspect. If the slope of armour is not at 30 degrees, then this must be converted to its 30 degree equivalent.

## Armaments Tab

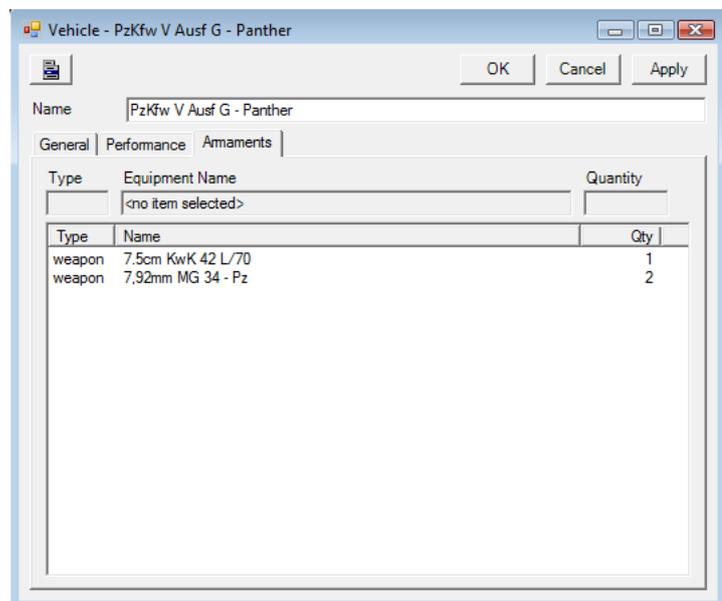
Armaments refers to any sub-weapons belonging to this item. Most weapons will not have any armaments of their own and hence the listing will be empty.

To add an armament:

- ☞ Select the desired weapon from the Weapons tab list, drag to the Equipment Name field and release and then set the desired quantity.

To delete an armament:

- ☞ Select it from the Armaments list and set the quantity to zero. It will be removed the next time you open the data view.



# COMMAND OPS 2

## Forces

The force tree list is organised hierarchically - side, nation, service, units.

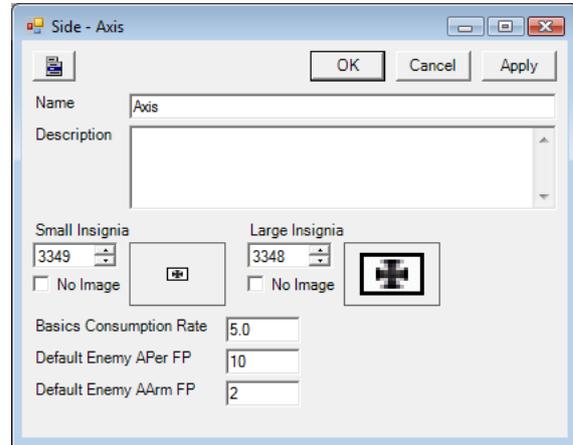
### Side

**Insignia** - you need to set both a small and large insignia image

**Basic Consumption Rate** - in kilos per day. Used to determine resupply requirements for basic supplies - ie food, water and stores.

**Default Enemy APerFP** - the default anti personnel firepower used by the intel code where it is assumed a typical small infantry company would be present.

**Default Enemy AArmFP** - the default anti armour firepower used by the intel code where it is assumed a typical small infantry company would be present.



### Nation

**Insignia** - you need to set both a small and large insignia image

**Nationality** - not used

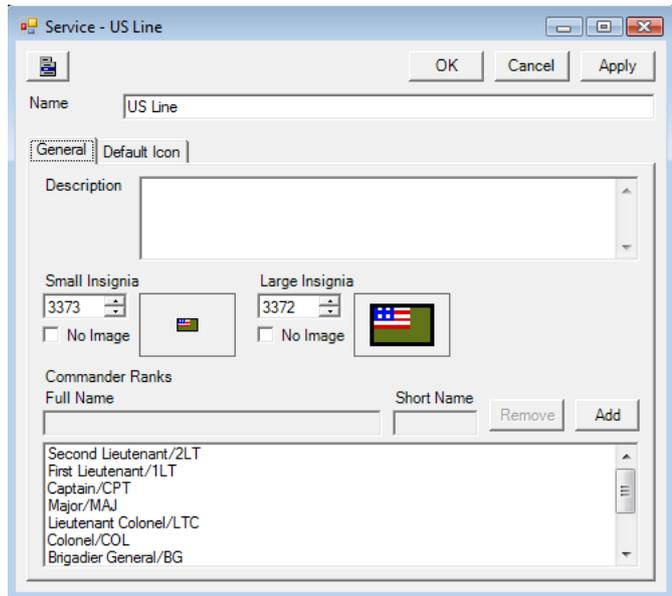


## Service

### General Tab

**Insignia** - you need to set both a small and large insignia image

**Commander Ranks** - add as many ranks as required. These will be used to seed the Rank drop down list in the Unit data view.



### Default Icon Tab

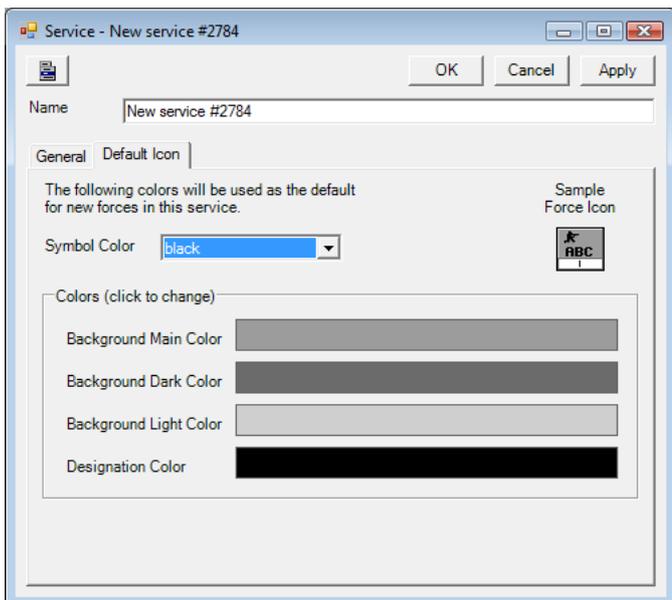
**Symbol Color** - either black or white. Affects the color of the Nato or Picture symbol used to depict the type of unit. Use black on light coloured backgrounds and white on dark backgrounds.

**Background Main Color** - the normal background color.

**Background Dark Color** - the shadow background color.

**Background Light Color** - the highlighted background color.

**Designation Color** - the colour of the text denoting the unit's designation.



## Unit

### General Tab

**Force Type** - General category either infantry, armour, artillery or logistics.

**SubForce Type** - The options vary with the Force Type selected. Together with ForceType, this field is used by the AI to sort, find or select units.

**Combat Class** - either line, line support, support, HQ, base or static. Line units are able to assault independent of any other force

types - eg infantry and tank companies. Line Support can assault but only if accompanied by a line unit - eg heavy machine gun units, anti-tank units. Support units cannot assault but can provide indirect fire - eg artillery, rocket and mortar batteries. HQs are command elements. Bases move and store supplies and provide logistical maintenance and support. Static units cannot move - eg garrison infantry and fortress arty batteries.

**Target Class** - either hard, mixed or soft. Used by the AI to determine the type of fire to be used against this unit. Hard units are engaged by anti-armour fire power ( AArmFP ) and should be used for all armoured fighting vehicles ( AFVs ) where the crew and any passengers stay with the vehicle. Soft is engaged by anti-personnel fire power ( APerFP ) and is used for any personnel type units such as infantry, engineers, cavalry etc. Mixed is used for those AFVs where the passengers can dismount and fight exposed, such as mechanised infantry. When mounted they are engaged with AArmFP and when dismounted by both AArmFP and APerFP.

**Move Class** - either foot, bicycle, horse, halftrack, tracked, wheeled, air, sea or sub. Air Sea and Sub are not supported at the moment ( so do not use them ). In effect the remaining classes are converted to either motorised ( wheeled, tracked or half-tracked ) or non-motorised ( foot, bicycle, horse ). We aim to cater specifically for each class in the future.

Deployment Duration	
Deployed	00:05
Dug-in	02:00
Entrenched	2:00:00
Fortified	1:00:00

**Force Size** - either section, platoon, company, battalion, brigade, division, corps, army or army group. Note that where units were historically called a regiment, this may be either a battalion or brigade sized unit. Eg a British Armoured Regiment is a battalion size while a US Infantry Regiment is a brigade size. US Army squads are a section size. Most arty batteries are a company size. German kampgruppe ( KGs ) can be of any size. American task forces ( TFs ) and British battlegroups ( BGs ) are typically of battalion size but can be company size.

**Commander Rank** - choose from the drop down list, which is seeded ranks of the Service this estab belongs to.

**Personnel** - the number of people in the unit.

**Staff Capacity** - this affects how many units this unit can command effectively. See the Game Manual:Staff Capacity and Staff Load for a full explanation. As a rough guide use the following ranges: company = 1. Bn HQs = 4 to 6. Bde HQs = 6 to 8, Div HQs = 8 to 12, Corps HQ = 12 to 14, Army HQs 15 to 18.

**Infantry Value** - the number of “bayonets” in the unit - ie the number of personnel who fight as infantry. Affects force allocation. In an infantry company this will generally equal the Personnel value. In a mech inf, engineer or recon unit it may only be a fraction as AFV and construction vehicle crew would be excluded. In an armoured or arty unit it would be zero.

**Recon Value** - affects force allocation and detection of enemy. As a rough rule of thumb this should be 20% of the Personnel value for infantry units, 80% for dedicated recon units, zero for all base, HQ, support and line support units.

**Engineer Value** - affects the time required to build bridges, prepare demolitions and the probability of removing demolition charges. As a rough rule of thumb this should equate to 8.33% of the Personnel value of engineer units ( ie 1 point for every 12 engineers ) - otherwise zero.

**Can Bombard/On-call Support** - check if this unit can conduct bombardments and provide on call support - ie is an indirect fire unit such as artillery, mortars or rockets.

**Reload Time** - only enter a value ( in hours:minutes ) if this is an indirect fire unit that must spend significant time reloading after firing. Usually applies to rocket launchers, where each barrel must be reloaded manually. Not normally set for mortars or artillery.

**Deployment Duration** - the time ( days:hours:minutes ) it takes the unit to deploy ( ie to find good firing positions ), dig-in ( ie to dig open trenches ), entrench ( ie to dig trenches with overhead protection ) or fortify ( ie enter a pre-existing fortification ). Note that units cannot build fortifications during a scenario, so the value for fortifications is not used ( but leave as the default “1:00:00” ). Most infantry units can deploy in around 5 minutes. Hvy weapons take longer: light/mdm mortars and AT guns - 7 to 10, field howitzers - 20, heavy guns - 30. Most infantry can dig in in 2 hours and be entrenched in 2 days.

**Speed** - the practical speed in kilometres per hour ( kph ) at Normal and Max rates of movement along a highway. Most foot units move at 6/9 kph ( normal/max ). Most wheeled support units at 20/30 kph; armour at 38/50. Armoured car and recon at 40/60.

## COMMAND OPS 2

### Equipment/Supply Tab

**Basics Consumption Rate** - a percentage modifier to the side's Basics Consumption Rate where 1.0 = 100% or no effect and 0.1 = 10% of the side rate. In general leave most units at 1.0. Logistics units like Bases can be set to 1.5.

**Fuel Load** - the number of hours of fuel the unit is normally supplied with. The default is 12.

**Equipment List** - drag the desired weapon or vehicle to add them to the list. Select and enter the quantity. Avoid adding additional weapons to a unit where your source may be incorporating those weapons that are part of vehicles.

Type	Name	Qty
vehicle	M3A1 HT - 30 cal MG	3
vehicle	M3A1 HT - 50 cal MG	3
weapon	.30 cal M1919A4 MMG	2
weapon	2.36in M9A1 ATRL 'Bazooka'	6
weapon	57mm M1 AT gun	1
weapon	.30 cal M1 Carbine	22
weapon	.30 cal M1 Rifle	41
weapon	.45 cal M3 SMG	7
weapon	60mm M2 mortar	1

### Icon Tab

**Symbol Color** - either black or white. Affects the color of the Nato or Picture symbol used to depict the type of unit. Use black on light coloured backgrounds and white on dark backgrounds.

**Military Symbol** - choose the desired NATO symbol from the drop down list.

**Picture Symbol** - choose the desired picture symbol from the drop down list.

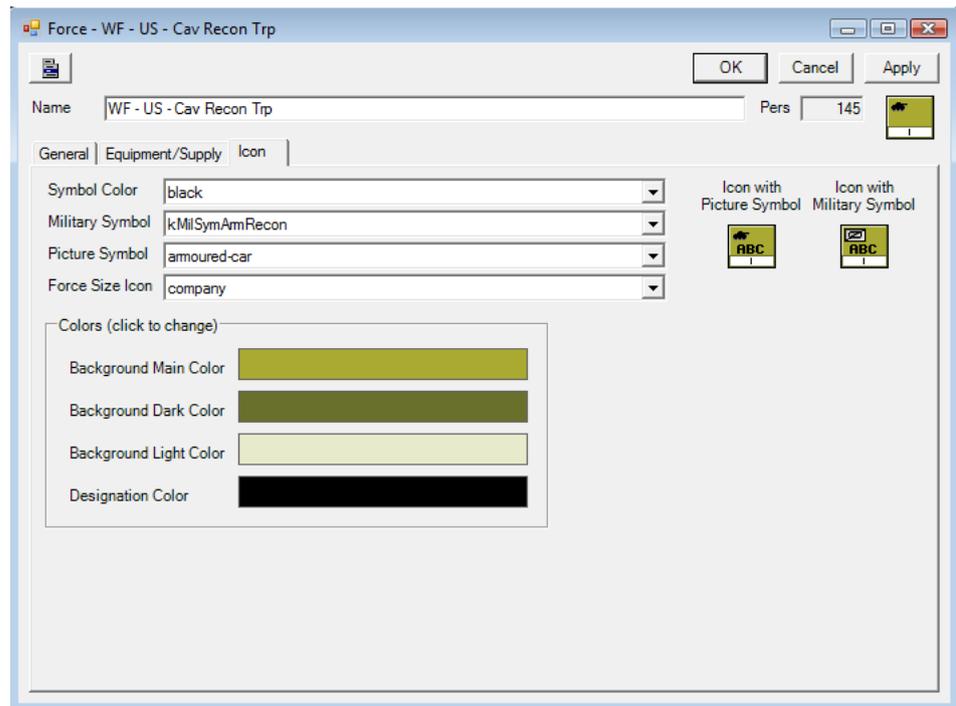
**Force Size Icon** - choose the desired size icon from the drop down list.

**Background Main Color** - the normal background color.

**Background Dark Color** - the shadow background color.

**Background Light Color** - the highlighted background color.

**Designation Color** - the colour of the text denoting the unit's designation.



## Formations

**Moving Cohesion Level** - the cohesion level the unit gravitates to as it moves in this formation. Columns maintain good cohesion on the move while lines and squares do not.

**Frontage** - the amount of frontage each man covers in this formation. Total frontage = frontage per man x persQty.

**Depth** - the amount of depth each man covers in this formation. Total depth = depth per man x persQty.

**Aspect Modifiers** - there are four aspects - front, rear, left and right. Each has three modifiers.

**Target Percentage** - how much of the units personnel and equipment are exposed to fire through this aspect.

**Firing Percentage** - how much of the units weapons can fire from this aspect.

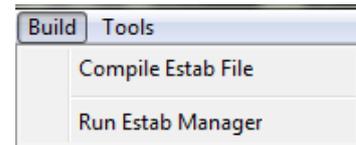
**Security** - how secure this aspect is ( either min, normal or max ). This is used in the code that determines which formation to use. If security is a concern and the enemy threat is to the left then the code will be more likely to select a formation with a high security rating for the left aspect - eg Left Echelon.

Aspect	Target Percentages	Firing Percentages	Security
Front	0.254883	0.204834	min
Rear	0.254883	0.154785	min
Left	0.804932	0.304932	normal
Right	0.804932	0.304932	normal

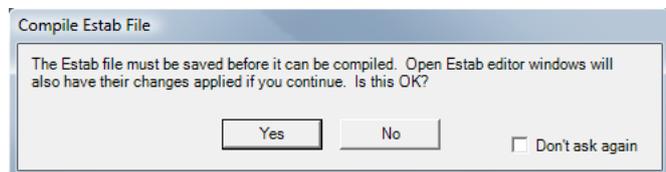
# Compiling and Testing

Once you have finished entering the data:

- ☞ Save the .xml file
- ☞ Close all data windows ( recommended )
- ☞ Select Compile Estab File from the Build menu

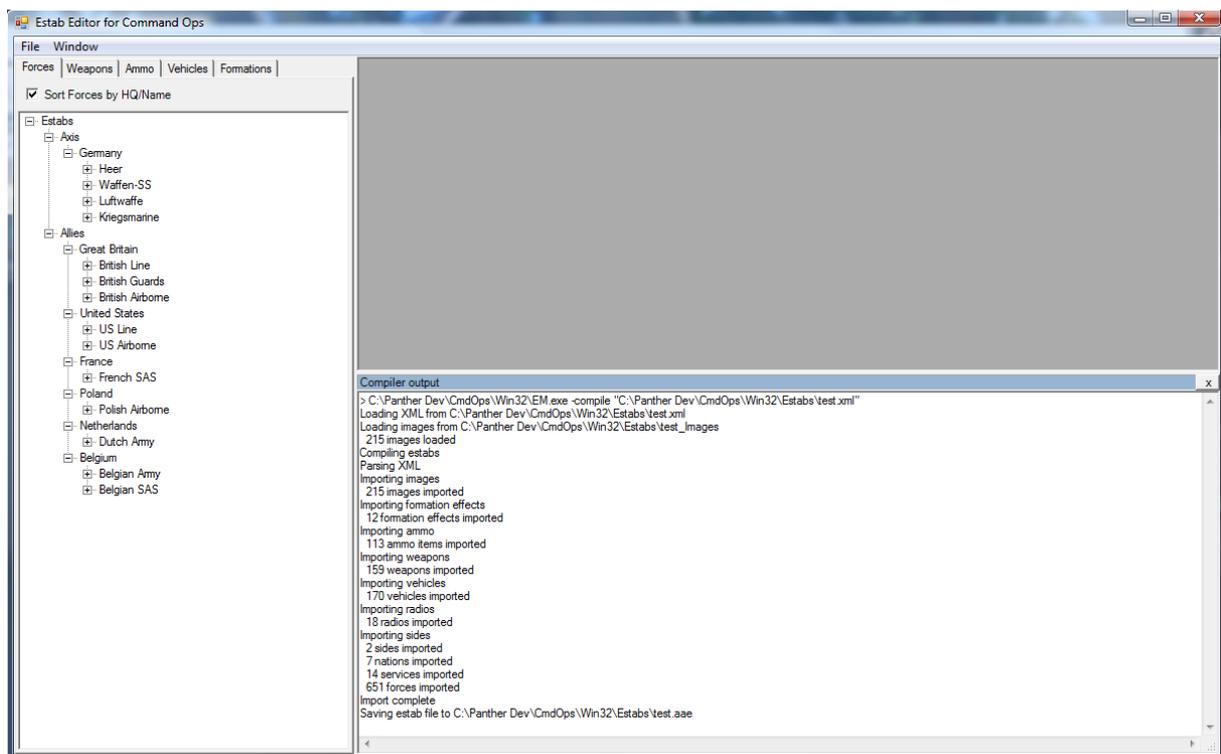


This will open a warning message advising you that you should have saved the Estab.xml file prior to compiling. If you haven't simply select No, save the file and then repeat. It also warns that any opened data view will be saved prior to compiling.



- ☞ Hit Yes to continue or No to abort.

The compiler Output pane then appears at the bottom of the screen and the output text appears advising



## COMMAND OPS 2

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the steps taken. Note that it should end with the line “Saving estab file to.....coe”. If this doesn’t occur, then it should advise an error message. This may be that an image is missing or some data has been entered incorrectly. Deal with it and repeat.

Make sure you either save or move the compiled Estab.coe file into the Estabs directory of the game before testing.

☞ Link the estab file to the scenario files.

You will need to ensure that the scenario you intend testing your estab file on has been linked to the estab file. To do so, please refer to the ScenMaker Manual. Once linked/set, you will not need to repeat this step.

☞ Test.

The best way to test the estabs is to open the game and run a scenario that uses the estab file. Check the estab data displays and ensure that the game runs without error. If there is anything missing or incorrect, then the initialisation checks may fire on loading the scenario and advise you of an error. Note down any estab details mentioned in the assert. You can then load the xml version in a text editor, find the estab item referred to by searching for its ID and note its name and details. Then go back into the Estab Editor to amend it.

## Annex A - Estab Editor Checklist

- ☞ Clone the CO Estab.xml file
  - ☞ open the CO Estab.xml file
  - ☞ save it under a different name in the Game's Estabs dirctory
  - ☞ save a copy of the CO Estab\_Images directory under a different name
- ☞ Research your facts - use quality source references
- ☞ Enter the Data
- ☞ Save Early, Save Often
- ☞ Close all Data windows ( recommended )
- ☞ Compile the Estab.coe file
- ☞ Link the Estab to Scenarios
  - ☞ open the ScenMaker and set the Estab file for the desired scenario(s)
- ☞ Test
  - ☞ open the Game
  - ☞ run the scenario
  - ☞ note any error asserts on loading
  - ☞ check the Estab data views
  - ☞ make sure the game runs