

GAME MANUAL

ADVANCED TACTICS™

WORLD WAR II



EPILEPSY WARNING

PLEASE READ THIS NOTICE BEFORE PLAYING THIS GAME OR BEFORE ALLOWING YOUR CHILDREN TO PLAY.

Certain individuals may experience epileptic seizures or loss of consciousness when subjected to strong, flashing lights for long periods of time. Such individuals may therefore experience a seizure while operating computer or video games. This can also affect individuals who have no prior medical record of epilepsy or have never previously experienced a seizure.

If you or any family member has ever experienced epilepsy symptoms (seizures or loss of consciousness) after exposure to flashing lights, please consult your doctor before playing this game.

Parental guidance is always suggested when children are using a computer and video games. Should you or your child experience dizziness, poor eyesight, eye or muscle twitching, loss of consciousness, feelings of disorientation or any type of involuntary movements or cramps while playing this game, turn it off immediately and consult your doctor before playing again.

PRECAUTIONS DURING USE:

- Do not sit too close to the monitor. Sit as far as comfortably possible.
- Use as small a monitor as possible.
- Do not play when tired or short on sleep.
- Take care that there is sufficient lighting in the room.
- Be sure to take a break of 10-15 minutes every hour.

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1.0 ADVANCED TACTICS™

Thank you for purchasing Advanced Tactics!

1.1 MINIMUM SYSTEM REQUIREMENTS

To play Advanced Tactics, your computer system must meet these requirements:

OS:	XP, Vista
CPU:	1.5 GHZ
RAM:	512MB
Video/Graphics:	software accelerated, no particular video card required
Sound:	Basic Soundcard
Hard disk space:	150MB

1.3 INSTALLATION PROCEDURES

Insert the game CD into the CD-ROM drive. Setup will run automatically. If Setup does not start, run Setup.exe from the Windows directory on the CD.

When the Setup screen appears, click Install Advanced Tactics. Double-click the Advanced Tactics icon. On the introductory screen, click “Play”.

1.4 UNINSTALLING THE GAME

Please use the Add/Remove Programs option from the Windows Control Panel to uninstall the game, or the Uninstall option in the Advanced Tactics menu item under the Start Menu.

1.5 PRODUCT UPDATES

In order to maintain our product excellence, Matrix Games releases updates containing new features, enhancements, and corrections to any known issues. Keeping up with these updates is made easy and is free by signing up for a Matrix Games Member. When you're signed up, you can then register your Matrix Games products in order to receive access to these important game-related materials. Doing so is a simple two step process:

Sign Up for a Matrix Games Member account – THIS IS A ONE TIME PROCEDURE; once you have signed up for a Matrix account, you are in the system and will not need to sign up again. Go to www.matrixgames.com and click the Members hyperlink at the top. In the new window, select Register NOW and follow the on-screen instructions. When you're finished, click the Please Create My New Account button, and a confirmation e-mail will be sent to your specified e-mail account.

Register a New Game Purchase – Once you have signed up for a Matrix Games Member account, you can then register any Matrix Games title you own in your new account. To do so, log in to your

account on the Matrix Games website (www.matrixgames.com). Click Register Game near the top to register your new Matrix Games purchase.

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

Remember, once you have signed up for a Matrix Games Member account, you do not have to sign up again – at that point you are free to register for any Matrix Games product you purchase. Thank you and enjoy your game!

1.6 GAME FORUMS

Our forums are one of the best things about Matrix Games. Every game has its own forum with our designers, developers and the gamers playing the game. If you are experiencing a problem, have a question or just an idea on how to make the game better, post a message there. Go to <http://www.matrixgames.com> and click on the Forums hyperlink.

1.7 TECHNICAL SUPPORT

Should you have a technical problem with the game, the best way to get help is to post a note in the Technical Support sub-forum within the Advanced Tactics forum at <http://www.matrixgames.com>. You'll then hear back from our personnel, or from one of the many helpful players of the game. This is usually the fastest way to get help. Alternatively, you can email your problem to support@matrixgames.com.

1.8 ADVANCED TACTICS FEATURES

- Random map generator with optional shroud of darkness and mirror map, research cost adjusted to map size functionality.
- Supports any screen resolution above or equal 1024x768.
- A Wargame Construction Kit editor enabling to make any scenario you like.
- Editor functions include setting all graphics, all subformation types, landscapes, location types, research fields, all data actually and a lot of game engine rules, a good scripting engine and an action card system.
- Editor also features a map overlay so you can easily copy existing maps to hexagon format.
- Realistic Supply System that can be harassed by damaging bridges and ports or by disrupting enemy sea supply lanes with your navy or airpower.
- Customizable Chain of Command.
- Excellent PBEM cheat prevention mechanism, not even re-installing the game or using a different computer will let you cheat.
- Detailed, but fully automated mini battles, show you what's happening in battle.
- Engineers can construct roads and fortifications, blow bridges and raze towns.

- Airwings can paratroop, airlift, airsupply, air attack, bomb and do air recon missions.
- Naval units can transport land units, facilitate amphibious landings and do shore bombardments.
- Aircraft Carriers allow you give your aircraft a base on the high seas.
- You can set retreat% of land units and choose between normal or artillery land attacks.
- Excellent FOW, depending on your recon level you have full information, partial information, or almost no information on enemy units and hexes.
- You control what all your towns produce
- Up to four research levels for almost all equipment; possible to upgrade existing equipment.
- Three great operational scale World War II scenarios: Ardennes '44, Africa '41, and Gothic Line '44
- Two full-theater World War II Eastern Front scenarios for 1941 and 1942
- A three-player Europe 1945 scenario giving the Germans a last chance due to the Soviets advancing on the Allies.
- Fictional USA and Europe map scenarios, as well as a Diplomacy-style scenario, and loads more.
- History Screen in which you can review all moves the enemy made in their turn.
- Not just limited to two players; scenarios for up to 9 players are included
- Very customizable units; you decide the weapon mix of your divisions and armies!
- Command forces on land, sea and in the air

2.0 INTRODUCTION

Welcome to a very special game. Advanced Tactics challenges the wargamer on the tactical as well as the strategic level.

This game is the successor of the freeware game People's Tactics. I have spent more then two and a half years on recoding this games basic concept and expanding on it. Advanced Tactics is the result. A few features have been dropped, but a lot has been added!

It is important to keep in mind that a lot of rules and all statistics in this game are based upon the World War II era; scenarios you download might divert from these rules and statistics stated in this manual, so keep this in mind.

This game has an extremely flexible engine. You are able to play almost any wargame scenario you want (for human to human PBEM / hotseat play) and with a little less flexibility, the AI can handle a lot of scenarios.

I hope you will enjoy the game!

Kind regards, Victor Reijkersz

2.1 TACTICAL AND STRATEGIC GAMEPLAY

In this game, troop quantities and equipment technology being equal it will be skill and mastery of the art of war which will bring victory.

The first thing a good general should do is conceive a plan. This is especially true in this game. You should buy the weapons you need for your plan to succeed. Players without a plan will buy the wrong equipment and subsequently lose. Do not get tempted to just build a little bit of everything available!

Your plan should be flexible, since as you might have heard that in war, plans rarely survive first contact with the enemy.

A simple, flexible plan should outline which parts of the front (or expected front) should be attacked, and which parts should be defended. A smart general will also designate some areas behind the front in which to gather reserve forces.

More concretely, you'll have to decide what to produce and if you want to invest production capacity in higher tech levels for those weapons. The earlier in the game you get intelligence about the enemy, the better. For example, building many light tanks when the enemy has medium tanks may not be the best course of action.

Aircraft are basically an offensive weapon as they are best used in destroying or weakening enemy units at critical locations. However, they can also be used to good effect to blunt an enemy attack. Enemy AA will usually be found in his offensive armies, though it will be a very resourceful general that is able to afford AA guns to cover all of their army.

Mastery of the sky also allows you to use paratroopers in offensive operations. Dropping troops far behind the lines can cause an enemy without reserves enormous troubles and facilitate a quick advance for your main force. Also, bombing missions on bridges, forts, and towns will prove much easier to conduct if not intercepted.

No battle will be decided by air alone though, especially not if the terrain is rugged and provides good cover against aircraft.

For waging a successful land campaign, a lot of strategies are possible. But the basics remain effective, too, such as using tanks for offensive operations and infantry for defensive operations.

For countering enemy armor, the most effective weapon is your own armor, preferably stronger (e.g. medium over light tanks). Even massed infantry could do reasonably well countering attacking enemy armor formations. Try to hold a line where the terrain is the most rugged, since armor will fight less well there. Also, equip your infantry formations with some sort of anti-tank weaponry, like

bazookas or anti-tank guns. Having one or more armored formations behind the line to counterattack any breakthroughs will pay off.

For breaking through enemy defensive lines you should try to focus all your armor on a small part of their front and then use the speed of armor to breakthrough into the rear. Preferably, armor should make some sort of encirclement of part of the enemy front. Strong positions should be softened up with artillery and air strikes before attacking with your armor. If the terrain is not suitable for armored attack, make sure you have mortars and artillery with your infantry.

Of course even the strategies and counter strategies described above can be countered. But as a rule of thumb they should work. It all depends on the flexibility of your plan and your willingness to change tactics.

Reserves can be crucial. Since fresh green troops will die very easily, it is more than advisable to have battle-worthy, fully-trained troops behind the line to counter any enemy breakthroughs. These reserves should at least be partially mobile to move quickly to any trouble spot.

Artillery can be very easy to underestimate. While it might give you casualties, it probably won't produce them in large numbers. Casualties from artillery is not the only thing you should worry about, however. Artillery reduces unit Readiness dramatically and hurts their Morale if they're exposed to it for multiple turns. Massed artillery fire will reduce your troop's combat value by 50% or more. This preparation, possibly combined with an air strike, will greatly increase the enemy's chances of breaking your lines wide open. If possible, use airpower to destroy enemy artillery; otherwise, try a small-scale offensive if enemy artillery is massed.

The ultimate game-winning tactic on land is encirclement. If you manage to cut off enemy troops from their supplies, they will be sitting ducks. Pick an area that lacks production capability (e.g. no towns, or towns too small to supply the enemy in the area) to surround to increase their supply drain.

And last but not least, always keep an eye on your supply. Make sure you have adequate roads to provide supply in all eventualities. If there are bridges on the map, make sure you build more at crucial points, as one bridge can easily be destroyed by an aerial bombing mission. A prudent general will always keep some engineers just behind the front to make sure supplies flow smoothly. If there is no emergency, engineers can be used to repair damaged towns or to build/repair airbases and fortifications.

ADVANCED TACTICS

WORLD WAR II

2.2 MAIN MENU



Here you have the following options:

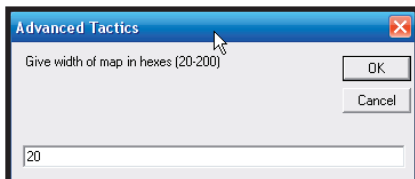
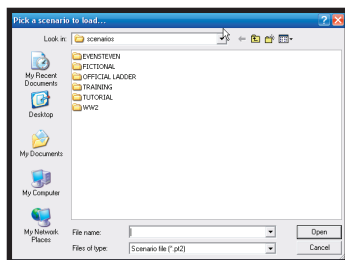
2.2.1 LOAD SCENARIO

Click to open a file dialogue starting in the scenario folder that enables you to select a “.pt2” file to load. Only “.pt2” files are actual scenarios. If you load a scenario you will automatically go the Scenario Settings screen from where you can launch the scenario you loaded.

See section 4.0 for details on game setup.

2.2.2 CREATE SCENARIO (EDITOR)

Click here to go to the Editor. A new blank scenario will be created; you can set the map's size. This blank scenario will have generic. ptmaster as a masterfile standard. If you want a complete blank scenario, you'll have to select the New option inside the Editor.



See section 13.0 for details on creating a game in the Editor.

2.2.3 LOAD SAVED GAME

[Click here](#) to load a saved game.

2.2.4 RANDOM SCENARIO

[Click here](#) to go to the “Random Scenario” screen (see section 3.0).

2.2.5 VISIT WEBSITE

[Click here](#) to go directly to the game’s website.

2.2.6 QUIT

[Click here](#) to exit the game.

3.0 RANDOM SCENARIO

Here you can use slider bars to set the specifications of the random scenario to be created. Most of the options speak for themselves.

3.1 WIDTH

Set the number of hexes wide your map should be.

3.2 HEIGHT

Set the number of hexes high your map should be.

3.3 PLAYERS

Set the number of Regimes/players in the scenario to be created.

3.4 LAND

The higher the level, the more land will be generated over water. For example, if you set this to 50%, the map will be half land and half water.



3.5 RIVERS

The higher the level, the more rivers will be generated.

3.6 FORESTS

The higher the level, the more forests will be generated.

3.7 MOUNTAINS

The higher the level, the more mountains will be generated.

3.8 TOWNS

The higher the level, the more towns will be generated.

3.9 ROADS

The higher you set the level, the more and longer roads there will be. Level 0 is no roads.

3.10 CITY SIZE

This slider enables you to set the average size of cities.

3.11 RESEARCH MOD %

If you set this to 100% the research cost will be normal; setting it to 200% will double the cost; setting it to 50% will halve the cost; and so on.

Swamp

3.12 SHROUDED MAP

If you flag this option the map will be created with a shroud. If you want to do a fair pbem game you should select this option, because it won't allow the creator of the random scenario to see the map or access the editor.

3.13 MIRROR MAP

You can only select this option if you are making a two-player map. If selected, this will ensure the map is a mirror of itself with the central axis running from northwest to southeast. With this option, you can ensure a fair random map.

3.14 BLOCK CENTER

If you flag this option the starting positions of all players will be around or on the edges of the map. You are advised to use this option when you flag mirror map.

3.15 FULL 1ST LEVEL TECH

If you select this option, all players will receive full first level tech. If you don't select this option, all players will be initially limited to producing staff, trucks, engineers, rifle, and cargo ships.

3.16 ALLIED AIS

If you select this option, all computer-run Regimes will be at peace with each other. This will ensure they focus on human players.

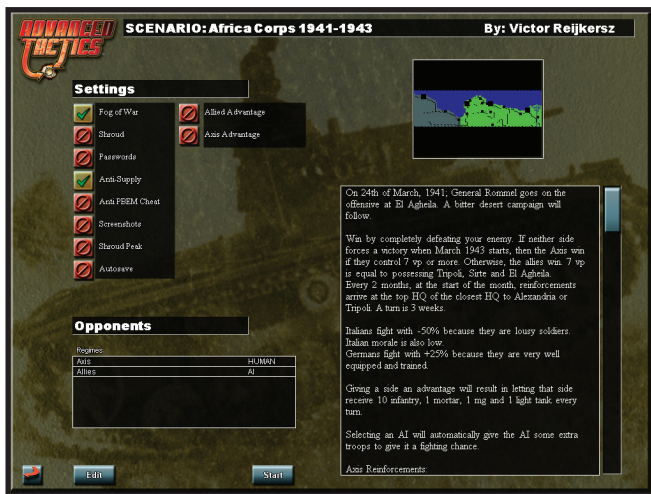
3.17 MASTER

This option has been added if you want to use a different masterfile for creating a random scenario. The generic.ptmaster file is the only file you should use to base a new random scenario.

3.18 MAKE BUTTON

Click here if you want to generate the random scenario as specified. This can take a few minutes depending on your choices (larger maps and more detail will take longer to render, especially on slower computers). When done, the Settings screen will load (see section 4.0).

4.0 LOAD SCENARIO



On this screen you see a mini map (at top right), a scenario description (at bottom right), the settings for this scenario (at top left), and a list of your opponents (at bottom left). The red arrow at the



very bottom and left of your screen is a Back button; this will let you go back to the previous screen. This button has the same function throughout the game, so when you go too far/want to back up, simply click it to return from whence you came.

The Settings section details a few more rules you can set for your upcoming game, as follows.

4.1 FOG OF WAR

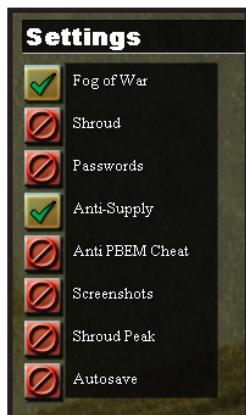
Select this option to see all hexes, but only see enemy units in hexes where you have enough recon. You are advised to select this option for serious play.

4.2 SHROUD

Select this option to only see hexes and units where you have enough recon. The game will remember the last state of any hex last seen. This option is automatically selected if you made a random map with a shroud.

4.3 PASSWORDS

Select this option to require each player to enter a password on their first turn. This option is advised for any serious Play by E-Mail (PBEM) game. This will keep other human players from accidentally looking into your turn.



Keep track of your password carefully; if it is lost, there is no way to recover it.

4.4 ANTI-SUPPLY

Select this option if you want anti-supply rules in your game.

4.5 ANTI PBEM CHEAT

Select this option to prevent cheating in a PBEM game. With this option it will be impossible to save during your turn; it can only be saved after the turn has ended. Also, all players will be notified if you access your turn more than once (e.g., to replay a turn to reverse a unlucky result, which you cannot get away with when this option is selected). Also, reinstalling the game will also count as cheating in this case.

It is of course possible that there is a legitimate reason for a player to load their turn twice or reinstall the game, so that's why the punishment for this only results in a public notification.

4.6 SCREENSHOTS

Select this option to have the game make automatic screenshots at the start and the end of every turn. This is a great option if you want to write an After Action Report afterwards.

4.7 SHROUD PEAK

Select this option if you want all players to have initial knowledge of the map. This is a useful option if you want to hide the building of fortifications, airfields, and expansion of Regimes in your games.

4.8 AUTOSAVE

Flag this option to have the game autosave at the start of every turn.

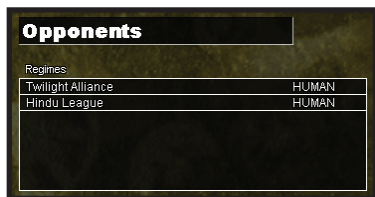
4.9 SCENARIO SPECIFIC OPTIONS

Some scenarios add their own flags to this screen. See the scenario documentation in the right of the screen for information on the options they represent.

4.10 OPPONENTS

By clicking on a Regime of your choice, you can switch the player of the Regime between HUMAN, AI, AI+, and AI++. The AI is the Artificial Intelligence (the computer) which can be given a bonus (AI+) or a super bonus (AI++) in its production power. A normal bonus is 100%, while a super bonus is 250%.

This game comes with an adaptive Artificial Intelligence, but seeing the complexity of the rules, you should consider finding a Play by E-Mail opponent to have a really challenging game. Also, consider giving AI bonuses by selecting AI+ or AI++.



4.11 BACK BUTTON



Click the Back button if you want to go back to the Main Menu.

4.12 EDIT BUTTON

Click the Edit button if you want to edit this scenario.

4.13 START BUTTON

Click the Start button if you want to start the selected scenario with the specified settings.

4.14 GAME LOOP

After you started a scenario, loaded a Play by E-Mail game, or after you've ended a turn, you will see the Game Loop screen. This screen does a number of pre- and after-turn calculations, as well as checks events and runs the AI's turns.

Eventually it will require a human player to play, or if it is not your turn (in a play by e-mail game) to save & quit. If it is your first turn and the scenario uses passwords, you must enter your password and then click Login again and re-enter it to be able to login. Make sure you pick a password you can remember, because if you lose it, there's no way to reset it or find out what it is.

After you have successfully logged in, you will be presented an overview of the production your Regime received, the losses suffered, and kills made during your opponents' turns. You will need to press Start to begin your turn.

If you're not playing a Play-By-Email game, the login part won't be necessary; instead you'll go right to an overview of the previous turn's production. Losses will be listed if you are playing a hotseat game with another player.

If there are any messages, they are shown to you now. You can review these messages later in the Decision Room in Main Game Screen. Press Acknowledge to continue to the next message or go to the Main Game screen.

4.15 PLAY BY E-MAIL

If you play by e-mail against somebody, you'll have to end turns until it is your opponent's turn, and instead of logging in you should select the Save & Quit button. Then, e-mail the saved file to the next human player.

Keep in mind that the save file is already zipped and encrypted and there is no way to get it significantly smaller or to open it without resorting to hacking. This encryption of saved files, combined with the Anti PBEM Cheat option, makes this game pretty safe for serious PBEM-ing contests and matches.

Also keep in mind that when playing with Anti PBEM cheat activated, you will cause a cheat to be reported if you open your turn for a second time, if you re-install the game, if you play your turn on another computer, or if you delete your log file.

To find opponents for your game, you can visit the Advanced Tactics website at www.advancedtactics.org. There you will be able to locate PBEM opponents, play in ladder games, and upload or download player-made scenarios.

5.0 MAIN SCREEN

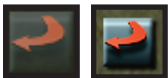
This is the screen you'll be looking at most of the time. The Main Map dominates most of the view; to the right of the Main Map is, at top, your Regime name (if anything other than "Your Regime"), the number of Political Points you have (PP), the Date (Dat), and a Mini-Map.



Beneath the Mini Map is information on the currently selected hex on the Main Map.

Beneath the Main Map itself is a long row of buttons. These are used to control various functions of the game. They operate as follows, from left to right:

5.1 GO BACK



This button is grayed out if you are already on the Main Map screen. Usually, you would use this button to go back to the previous screen. To exit the game, you'll need to click the System Options button (see below), or the red 'X' button in the far upper right corner of the screen.

If you can go back to a previous screen, however, the button will be lit up and available for use.

5.2 STATISTICS



The Statistics screen will give you various in-game statistics, including Produce (Production), Losses, Kills, Totals, OOB (Order of Battle), Power, Briefing, People, Location, and Supply.



5.2.1 PRODUCE

This is a graph that measures the number of Production Points your Regime controls over the course of each Round.

5.2.2 LOSSES

This is a graph that measures the total number of losses you suffer over the course of the game.

5.2.3 KILLS

This is a graph that measures the total number of kills you inflict over the course of the game.

5.2.4 TOTALS

The Totals screen gives you exact numbers (instead of graphs) on the number of kills you've inflicted, the number of losses you've suffered, the numbers of each subformation type that you've produced,

the number of kills you've inflicted on the current turn, and the number of losses you've suffered on the current turn.

5.2.5 OOB

The OOB, or Order of Battle, lists each unit under your command as well as the HQs to which they are assigned. Furthermore, you can click on each unit and inspect its current status.

5.2.6 POWER

The Power tab details the strength(s) of your armed forces by listing the total number of each subformation type you have.

5.2.7 BRIEFING

The Briefing is the information that appears at the start of the game.

5.2.8 PEOPLE

The People tab will detail any strengths and/or weaknesses that the people of your Regime possess (such as increased Morale, or production modifiers).

5.2.9 LOCATION

The Location tab details each type of terrain location there are in the game. It will detail information such as costs, whether it counts as a port or airfield (if either), and any production capacities it may possess.

5.2.10 SUPPLY

Supply displays a screen that looks like the OOB, above, but instead shows you very detailed supply information on each unit you control.

5.3 SYSTEM OPTIONS

Brings up the system options for the game.



5.3.1 SOUND ENABLED

Check to enable sounds in the game.

5.3.2 SHOW FOG OF WAR

Disable this option if you don't want to see black overlay over hexes that you cannot see due to fog of war

5.3.3 AUTO COMBAT

Disable this option if you want to advance quickly through combat rounds.

5.3.4 RASTER GRID

Enable this option if you want to see a grid on the map to better see where each hex starts and ends.

5.3.5 COMBAT SIM

This option can ONLY be enabled in the first round of any game and is meant as a tool for scenario designers to calibrate subformation types. When this option is on, any combat action you do is repeated 200 times and you will be presented with the average result.

5.3.6 ENABLE COMBATLOG

Enable this option if you want combat logs to be created. This will severely slow down combat calculations, but it will present you with a text file in the log folder (that can be read by any text editor) in which all details about a battle are given. This is not the amount of detail that any sane or casual player would want, but is rather for a scenario creator or for tracking a bug in the combat routine it is useful.

5.3.7 HIDE ANTI SUPPLY INFO

Enable this option if you want to hide any information pertaining to anti supply.

5.3.8 SAVE

Click to save the game. This button is not present if you are playing with Anti PBEM Cheat option on.

5.3.9 QUIT

Click to quit the game and return to the Main Menu.

5.4 SET HQ OF LOCATION



This button allows you to set the HQ for a location on the map or a unit. To change an order of battle, select a unit to reorder and click Change HQ. Then click the HQ you want to be the new HQ of the unit. Or, click the None button to set no top HQ. It does not cost Readiness to change the HQ of an air or sea unit because these troops don't get bonuses from HQs.

Changing the HQ of a unit leads to a 50% Readiness drop for the unit. This reflects the changes that have to be made to function within the new command structure. There is no Readiness drop if you set the HQ of a HQ.

Disbanding a HQ also causes a Readiness drop for its units. You can have a max four HQs in a chain of command.

5.5 SET PRODUCTION OF LOCATION



Once you control a town, you have a place to build things. To tell it what to build, simply click a location and then click the Set Production button. This will open a production sub-window. Here you can divide the town's production power over four production slots.



Click on an empty Production Slot to activate it. This will open up an ItemGroups list, which is essentially a list of unit types that the town can produce.



Once an ItemGroup category is selected, a list of units that belong to that Type will be displayed. Select a unit from that list and you will be prompted to confirm; click "Select" to continue, or the question mark for more info on that unit type.



Once you select a unit and click the Select button, the slot you assigned will fill with that particular unit. A scale of 0-100 will also appear, with 100 set to default. This is the percentage of the location's production power to be assigned to the current slot.



As you click on additional slots and assign other units to them, you'll note that new percent scales will appear. Your choices can never exceed 100.



Next to each slot you will see a Prd and Lft value – these indicate the amount that will be produced each turn (Prd) and the amount left to produce (Lft).

Clicking on the Production View button below the slots will give you an overview of all your currently-held producing locations, as well as the totals they'll deliver to your different

HQs. Changing the production line will destroy any remaining production; however, changing the HQ of a location has no effect on production and you can do this at any time.

5.5.1 PRODUCTION DESTINATION

Production in your towns is sent to the Headquarters you've set for that town. It is possible to assign HQs overseas.

Once production goes to a HQ, you will need to Transfer it from the HQ to your units in the field. See section 6.5 for more details on how to do this.

5.5.2 PRODUCTION AND DAMAGED LOCATIONS

If a location has been bombed or damaged by combat and its structural points are lowered, it will produce a percentage of production equal to % of structural points of the location that are left.

5.5.3 PRODUCTION AND DISTANCE TO ITS HQ

If a location is too far from its HQ, the HQ will only receive a percentage of production. The remainder will be stored as left production and added to the next turn's production.

If location is further than 100 Action Points from its HQ, the remainder will never be able to be sent. This is among other reasons done to prevent getting production to damaged harbors by stockpiling.

5.5.4 NAVAL UNIT PRODUCTION

Production of naval units is unique. They need to be delivered into the hex they are produced in. The factory will check the units in the hex and deliver it to the first available type of unit from the following list:

1. The HQ of the location;
2. A unit with navy subformation type in the hex;
3. A unit in the hex with the same HQ as the location;
4. Any unit; then
5. If enough Production Points are available, creates a unit.

Delivery of production overseas is subject to anti-supply damage.

5.6 CENTRAL BUTTONS

Just beneath the main map window are several buttons used during gameplay. They are as follows.

5.6.1 MOVE UNIT

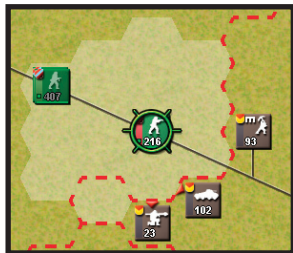


Select a unit on the map to move, then click this button. A lightly shaded area will display, indicating which hexes the unit can move to.

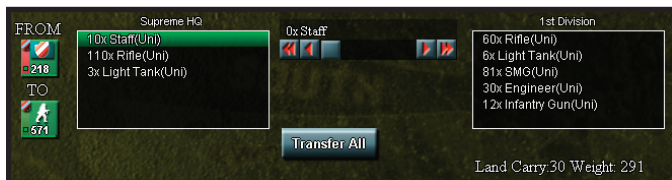
5.6.2 TRANSFER



The Transfer button is used to transfer subformations from unit to unit (HQ or normal unit, it doesn't matter). Click a unit you want to transfer FROM, and then click the Transfer button. Finally, select the unit that you want to transfer TO.



Select the subformation type from the list at left. A sliding scale will appear if that subformation type



can be transferred to the receiving unit. Adjust the scale as you deem necessary and click the Do Transfer button that appears. Or, you can select Transfer All. If you choose to Transfer All, note that the sending unit will become empty of subformations.

Units that RECEIVE transfers cannot do anything else that turn. Units that SEND transfers may still act normally (albeit possibly with altered movement rates and, obviously, attack strength, depending on what was transferred out).

5.6.3 STRATEGIC TRANSFER

This order transfers a whole unit instead of a subformation. You select a unit and click the HQ that will transfer it, and then select the target where you want to transfer to. Transferred units always lose all their Action Points and Engineer Points and half of their Readiness.

Capacity Points are used to conduct the transfer; these are represented by, for example, trucks and cargo ships stationed in the HQ that are necessary to facilitate strategic transfers. It is only possible to transfer units entirely consisting of land subformations over land or over sea. Units with air or navy in them cannot be strategically transferred.

5.6.4 SET UNIT'S HQ



To change a unit's HQ, select a unit to change and click Change HQ. Then click the HQ you want to be the new HQ of the unit. Or, click the None button to set no top HQ. It does not cost Readiness to change the HQ of an air or sea unit because these troops don't get bonuses from HQs.

Changing the HQ of a land unit, however, leads to a 50% Readiness drop for the unit. This reflects the changes that have to be made to function within the new command structure. There is no Readiness drop if you set the HQ of a HQ.

Disbanding a HQ also causes a Readiness drop for its units. You can have a max four HQs in a chain of command.

5.6.5 PARADROP



If transport aircraft are present, this button will be available. Use this operation to drop a unit of paratroopers behind enemy lines. The operation is interceptable by enemy air power. All aircraft will retreat after the 4th round of combat. Paratroopers will only enter combat in round 5. This means that it is possible that paratroopers can be destroyed while still on board their transport airplanes by enemy fighters or flak. Paradrop battles take as many combat rounds as necessary.

5.6.6 AIR SUPPLY



Use this operation to get supplies to friendly formations that are isolated from supply. This type of operation is interceptable by enemy fighters within range of the hex you want to focus recon operations on. This kind of intercept only lasts for 2 combat rounds. You don't resupply a single unit using this order, but you resupply everything within 250 Action Points' worth of supply movement range of the target hex (although the further from this target hex you go, the less supply is available).

5.6.7 LOAD UNIT (AIRLIFT)



If the selected unit has naval transport capacity, and a transportable land unit is in the same hex, select the naval unit and then click this button to load a land unit. On the next turn, the naval unit will be able to move with the unit.

5.6.8 UNLOAD UNIT



If the selected unit is a naval unit transporting a land unit, and it is in a position where it can unload a land unit (adjacent to land, or in a friendly-controlled port town), click this button to unload the land unit. You will then be prompted to select the hex to unload the unit in.

5.6.9 MAKE NEW UNIT



For the cost of one Political Point you can create a new normal unit. For the cost of five Political Points you can create a new HQ. You cannot make a new unit out on the open seas.

To create a new unit, click on the map where you want it to appear (besides open seas and within a friendly-controlled land hex). Then, click this button and select whether it should be a Formation or a HQ. Once done, you can immediately transfer subformations into it, if you can and would like to.

5.6.10 DISBAND UNIT



You can disband an EMPTY unit at any time. To do so, select the empty unit and click this button. You will be refunded the Political Points it cost to build it in the first place.

5.6.11 AIR RECON MISSION



Use this operation to get information on enemy positions. This type of operation is interceptable by enemy fighters within range of the hex you want to focus recon operations on. This kind of intercept only lasts for 2 combat rounds. Your individual aircraft doing recon will not initiate combat versus others.

5.6.11 BLOW BRIDGE



Engineers, or other subformation types with blow points, are capable of blowing bridges. The chance of success depends on the structural points of the bridge and the number of blow points available to the unit. This action requires 50 Action Points from the unit.

If a unit has Engineer Points, the more Engineer Points a unit has collected the better it will do. If it saved two turns' worth of Engineer Points, it will have double the blow points. If it has half its Engineer Points, it will have half the blow points.

A bridge over a stream has 500 structural points and a bridge over a river has 1000 structural points.

Example: An engineer unit with 40 engineers has 800 blow points ($40 * 20$). It tries to blow a bridge over a major river with 1000 structural points. The code then throws a random number between 1 and 800 vs. a random number between 1 and 1000. If the random (800) number is higher, then the attempt succeeds, otherwise it fails.

5.6.12 BLOW LOCATION



Engineers or other subformation types with blow points are capable of blowing up locations. The amount of damage depends on the the number of blow points. This action requires 50 Action Points from the unit. Some locations can be completely destroyed; some can only be depleted of structural points. The only fully destructible location types are fortresses and fortifications.

Example: An engineer unit with 40 engineers has 800 blow pts. ($40 * 20$). It tries to blow an airfield with 1000 structural points. The code then throws a random number between 1 and 800; the result is the number of of structural damage points.

5.6.13 BUILD ROAD/BRIDGE



A unit must have subformations with Engineer Points to build a road. You need 25 Engineer Points to build a road. If you click Build Road, all hexes that you can build to are highlighted. If the target hex is beyond a river, a bridge will also have to be built. This is more expensive. Building a road and a bridge over a small river (stream) costs 50 Engineer Points and building a road and bridge over a big river costs 100 Engineer Points. Also, some terrain increases the cost of road building. Building into heavy forest, swamp, or low mountains doubles the cost. This means building road and bridge over a big river into the low mountains will cost 200 Engineer Points while a road into plains crossing no rivers will cost only 25 Engineer Points. If you build a bridge over a river, you need to own the hexes on both sides of the river.

5.6.14 BUILD/REPAIR A LOCATION



Engineers or other subformation types with Engineer Points are capable of constructing locations. The only two things a unit needs to build is enough Engineer Points and optionally enough supply points in its HQ (or itself if is HQ). The following locations can be constructed in the default scenarios:

- Airfield costs 100 Engineer Points and 2 Political Points.
- Fortification costs 150 Engineer Points and 2 Political Points.
- Fortress costs 300 Engineer Points and 5 Political Points.
- Makeshift Port costs 100 Engineer Points and 2 Political Points.

You can repair a location by moving a unit with Engineer Points into the location's hex and then clicking the Repair/Build button. The amount of structural points repaired is equal to the Engineer Points the unit has versus the Engineer Points cost of the location type. For airfields, forts, fortresses, and makeshift ports, that's equal to their building costs. For a village it is 100 Engineer Points, a town is 200 Engineer Points, a city is 400 Engineer Points, a capitol is 800 Engineer Points, and a major capitol is 1600 Engineer Points. These values reflect a location whose structural points have been fully depleted.

5.6.15 TURN SUPPLY LAYER ON/OFF



This is the best way to view how well supplies are getting around your map. Click to view a colored overlay that will detail how easily supplies are getting out into the field. You can increase your supply distribution by building additional HQs, or using Engineers to build roads and/or bridges.

5.6.16 HIDE UNITS



You can hide units on the map in order to view terrain. Click this button to remove the units, and then click it again to return them back into view.

5.7 GAME OVERVIEW OPTIONS

5.7.1 HISTORY



The History screen lets you review the events of the most recent turn. This is especially useful when playing other human players via e-mail, but it is the only way to see what happened during the AI's moves as well. Clicking on this brings up a new interface which lets you step through the events of the turn, skipping to the next battle if desired or watching each event step by step.



You can use the slider to advance the game, or click the View Next Battle button to advance to the next conflict that occurred.

5.7.2 STRATEGIC INFORMATION MAP

You can select a Regime to view, the variables of that Regime (including their people's name, their base morale, the Victory Points they currently have, and your current relation with them.



5.7.3 DECISION ROOM

In the Decision Room, you can view the Research that you can conduct and view Reports.



Each regime can do its own research. Some research fields are only accessible by some people, however. This way it is possible to have two regimes that have two different research trees.

The Research screen is divided into three areas:

- Known Research, which lists all your currently-known units that you can produce;
- Not Yet Available, which lists all units you cannot research at this time; and
- Available Research, which lists all units you CAN research at this time.

Note in the upper right corner is your Political Point total (as well as current Game Round). Click on a unit in the Available Research column and its card will be displayed to the right of it. The cost, in Political Points, is displayed. If you can buy it, a Buy button will be displayed.

The research cost in Political Points is exponential, meaning level two is double the cost of level one, level three is double the cost of level two, level four is double the cost of level three, etc. This is done to reflect the increasing cost of specialization.

The Reports screen will detail any important happenings in the world. Click the Reports button to view them, or Research to return to the Research screen.

5.7.4 SURRENDER



The Surrender button will surrender your position to other Regime(s). If you surrender, all statistics will become available for viewing. If you are playing a PBEM game the number of other human players determines what happens to your units and territory. If more than one other human player remains, all your territory will be turned to neutral territory and your units removed.

5.7.5 END TURN



Clicking this button will end your turn and advance the game.

Destr – The amount of supply that was sent to the unit but was destroyed enroute.

Furthermore, HQs (only) have the following Supply Stats.

Real – Real total number of supply points in the HQ.

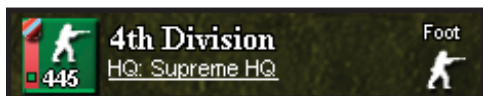
OutRq – The total amount of supply points requested by subordinate units at the start of the turn.

Out – The amount of supply points sent out to subordinate units at the start of the turn.

Resv – The desired amount of reserve supply points that you want to hold at the HQ. You can set this by clicking on the number and entering a new value in the pop-up window that appears.

See section 7.0 for more information on Supply Points.

6.1.2 UNIT DESIGNATION



At the top of the unit's attributes is its designation. At left is what its counter looks like, followed to the right by the name of the unit and beneath that, the unit's HQ. You can click on the unit's HQ to jump to that HQ.

At far right is the unit's designation, whether it is foot, armor, or what have you.

6.1.3 UNIT ATTRIBUTES

Along the top are six Attributes and beneath this, further unit information. The Attributes are as follows.

ACTION POINTS

The red arrow designates Action Points. They are needed to perform all kind of tasks. Subformations each have their own Action Points, so units are limited by the subformation in it with the lowest number of Action Points.

100	100	100	13	50	88
Stk	80		Staf	16%	
Lnd	0		HqPw	100%	
Nvy	0		Car	L:5/237	
Wgt	95		Rail	0	

A subformation gets Action Points at the start of a turn. The amount of Action Points it gets is equal to the Readiness the subformation has.

There is a special rule for navy subformations that they have a minimum amount of Action Points. So that navy subformations in case of completely depleted Readiness always will be to limp back to a harbor to resupply.

SUPPLY % CONSUMED AT START OF TURN

This is used as a combat modifier up to max of -75% on Attack Points and up to a max of -75% on Hit Points. Supply consumed at 0 thus means a unit fights 16 times worse than it normally would!

READINESS

Readiness determines the amount of Action Points and influences a unit's combat strength. You get Readiness by being in supply. It is important to firmly understand that low Readiness is more of a penalty for an attacking unit (max 100% penalty) than a defending unit (max 50% penalty). Readiness can rise at a max rate of 30 points per turn to reflect time needed to recover. It can drop a max of 40% per turn if the unit is fully out of supply to reflect this gradually worsening effect on a unit.

Air formations in a damaged airport get their maximum Readiness lowered. Naval formations in a damaged harbor get their maximum Readiness lowered.

Calculating Readiness:

Supply needed by units is dependent on their Readiness. Units with low Readiness need more supply. Basic supply is what is requested every turn (unless you put lower supply order on). At least a 50% basic supply level is needed to stabilize a unit's Readiness. Up to 150% basic supply is needed to actually regain Readiness. The first 10 Readiness loss costs 50%, the next 90 costs 100%. This rule reflects the higher supply need of doing combat.

Some examples:

Unit X has a basic supply of 200 points and can store upto 400 points. It has a Readiness of 100. It has 0 in storage and will thus request full basic supply of 200 points. It then uses only half because its Readiness is 100 and will put 100 in storage.

Unit Y has a basic supply of 200 points and can store 400 points. It has 350 points in storage and its Readiness is 90. It will thus request full basic supply of 200 points. It then uses 200 points due to it needing to recover its Readiness. If unit Y had a Readiness of 45, it would have used 350 points, draining the supply store to 200pts..

EXPERIENCE

Experience Points (XP) gives you a 1% Attack Point combat modifier and 1% Hit Point modifier per Point. You gain Experience Points by fighting battles or by training.

Training occurs automatically at the start of every turn. Through training, a unit can get 10 Experience Points a turn, up to a total of 20 experience points. Training, however, only goes so far to improve a unit, so a unit will suffer diminishing returns; after it gains 20 XP through initial training, it will only gain five experience points a turn up to 35 XP points, and then two XP points a turn up to 40 experience points. This automatic experience growth can be increased by the staff in the unit's HQ by a max of 100%.

If you want to get more than 40 Experience Points, it has to be earned through combat; more XP will come less easily as you approach the max value of 100 experience points.

MORALE

Morale is a percentage that measures how well a subformation will fight. Morale determines how many casualties (and individuals fleeing) a unit can stand before panicking. A Morale stat of 50 points means the unit can panic if 50% of its troops have died or have fled. A Morale stat of 25 points means that a unit can panic if 25% of its troops have died or have force to flee. Note the word 'can', this is because if the loss threshold has been reached, there is only a 25% chance per combat round that the unit will actually panic.

If it does, this is not good. Its Morale is then further reduced by two thirds and while in retreat, it is very vulnerable for further casualties.

Morale will recover automatically, going up by 15% of its Base Morale per turn. About eight points a turn can be earned this way, but this is assuming its Readiness is 100; the lower the Readiness, the slower the Morale will recover.

Getting a unit with low Morale out of combat should be a priority. Also, the staff in your HQ will provide a 50% bonus to Morale recovery if the HQ is fully staffed, the HQ power over the unit is 100%, and staff experience is also at 100 points.

ENTRENCHMENT

Entrenchment Points are a measure of how deep the subformation is dug in and how well it has prepared itself for defense. Each Entrenchment Point is a 1% combat bonus on defense. Entrenchment Points are always at least equal to the auto-Entrenchment the terrain gives.

Further Entrenchment is awarded at the start of the turn. Moving a unit will cause you to lose Entrenchment, so keeping a unit in place is the only way for it to retain this bonus.

Each subformation type has its own proficiency with entrenching. For example, armor does not dig in very well, while infantry does. Only artillery is able to attack without losing built-up Entrenchment. If you are under attack, you'll lose Entrenchment Points due to the fact that the enemy will target your positions also. Artillery is especially good at lowering Entrenchment levels (as well as Readiness levels).

Entrenchment Statistics								
Terrain Type	Infantry	Soft Mobile	Artillery	Armor				
	Auto	Max	Auto	Max	Auto	Max	Auto	Max
Plains	25	100	0	0	0	100	0	0
Light Forest	50	125	0	0	25	125	0	0
Heavy Forest	75	150	0	0	50	150	0	0
Swamp	25	50	0	0	0	0	0	0
Low Mountains	100	200	0	0	75	150	0	0
High Mountains	100	200	0	0	75	150	0	0
Urban	100	200	0	100	75	150	0	0
Fortification	100	250	0	100	75	150	0	0
Fortress	100	300	50	150	100	200	0	0

6.1.4 FURTHER UNIT STATISTICS

This section details the unit statistics that are displayed beneath the Unit Attributes.

Stk – Stack Points of the unit. The amount of Stack Points a subformation contributes to the Stack Value of a hex. Once this limit is exceeded, no more units or subformations may occupy it.

Lnd – Land Transport Capacity (for transfers). Based on the theater of the subformation type these capacity points give Land Capacity Points and Navy Capacity Points to Headquarters. (A value only appears here if the unit is a HQ; otherwise, 'N/A' is displayed.)

Nvy – Navy Transport Capacity (for transfers). Based on the theater of the subformation type these capacity points give Land Capacity Points and Navy Capacity Points to Headquarters. (A value only appears here if the unit is a HQ; otherwise, 'N/A' is displayed.)

Wgt – Weight of the unit.

Staf – Staff Points in % expressed as a % of needed staff points.

HqPw – Headquarters Power over a unit (determines staff influence).

Car – Carry Points. L = Land, A = Air, N = Naval.

Acar – Aircraft Carrier Points / Amount used. Only applicable to Aircraft Carrier units.

6.1.5 SUBFORMATIONS

To the right of the Unit Attributes is a graphic display showing all subformations allotted to that unit. By clicking on each subformation, you will go to a new screen that will detail all information about that subformation.

108x SMG



Hitpoints	100	Alt Range	0	Weight	1	Paradrop	NO
Class	Infantry	A.A. Range	0	Carry	0	Carrier	0
Supply Use	2	Vis%	25	T. Transp./Cap	0	AntiShoc	0
Supply Stock	3	Retreat%	25	Recon	1	Blow	0
Role	Frontline	Attacks	1	Hide	0	AntiSup	0
People	Universals	MaxAttnd	5	Entrench	40	AntiSupSea	0
		F.A.W. Ties	0	ZOC	1	ASupRange	0
		EvadeKill%	0	StackPts	1	StaffPts	0
		InitAtt	2	PowerPts	1	StaffCom	0
		IndtDef	2	Threat	Land	StaffMor	0
		Alt. Enrich	N/A	IntermedPtG	N/A	Enricher	0

Disband



Upgradeable to SMG II

Vs SFTypes
Vs Classes
Foot

Attack Pts / Defend Pts		
1. Armour	60	60
1. Artillery	25	25
1. Soft Mobile	25	25
2. Infantry	13	25

Infantry is the backbone of any army. Infantry is cheap to produce and defends well, especially in rugged terrain. It is not that well in offense, but if you make sure you attack at higher than 2:1 odds you can use them in that role too.

Infantry's main weakness is its vulnerability to tanks. Attacking armoured cars and light tanks have 2:1 odds versus the infantry. Attacking tanks however is a different matter, this infantry can do a lot better than defend against tanks at 1 : 1.2 odds.

When facing enemy tanks with infantry always try to add some

At top left is a picture image of the unit itself.

Below this is a window that tells you what this unit can upgrade to (if it can upgrade). Upgrading costs Political Points.

Beneath the upgrade display window is a description of the unit.

Near the top is a very detailed listing of all the unit's information. These are all described in section 13.7.

6.2 OTHER SETTINGS

To the right of the subformations attached to the unit are various settings boxes – Loss%, Supply, etc.

6.2.1 LOSS SETTING

This is a standard order. Here you can specify how many % of kills and retreats you want the unit to sustain in combat before calling an orderly retreat. Keep in mind that a unit with no retreat options will ignore this setting.

6.2.2 INTERCEPT SETTING

This is a standard order. Here you can specify below which Readiness percentage fighters should not intercept enemy air attacks. You can also set this setting to “don’t” which means the aircraft in this unit will never attempt to intercept. Keep in mind that aircraft will always fight if their airfield itself is under attack.

6.2.3 ANTI SUPPLY SETTING

This is a standard order. You can forbid a unit to exert Anti Supply Points. This can be useful if you want your naval fleets to go undetected.

6.2.4 SUPPLY SETTING

This is a standard order. Here you can specify the % of supply wanted that will be requested. A setting of 100% is optimal. A setting of 50% should suffice but would cause units to have no reserves at all. Even lower settings will result in lower Readiness levels.

Why would you ever want to give your units suboptimal supply? This is useful if you want to concentrate supply with frontline units, but do not need it so much for garrison units far away from any threat. (Remember the enemy might have paratroops, though...)

6.3 SUPPLY POINTS

While not a subformation in and of itself, it is a produceable commodity and thereby manageable.

A unit carries Supply Points. The difference between units and a HQ is that a HQ can hold an unlimited number of Supply Points. Normal units cannot carry more supply than their subformations can hold. If the HQ is stocked with an abundance of Supply Points, it can get a special movement type for supply bases (but at a very low mobility). It is possible to disband Supply Points by clicking on the Supply Stock stat.



It is also possible to set a reserve by clicking on the Reserve stat. If you set a reserve, you set a bottom limit that should not be used to send to other HQs. This reserve setting will cause the HQ to ignore maximally the set amount of supply points it already has in its supply stock when making a request at

a higher HQ. This way you can let HQs keep a fixed amount of reserve without transferring Supply Points every turn.

6.4 STAFF

You can station staff in your HQs. This is recommended since a staff level of 100% or more will give optimal bonuses to subordinate units. Troops usually need one Staff Point for every Power Point they are worth. Every staff individual counts for 10 Staff Points. If the ratio between staff in your HQ and troops in units is equal or more, you have 100% or more staff percentage in your HQ and you will get full combat, training, and Morale bonuses for the subordinate units of the HQ in question. The size of the bonus depends on the type of staff subformation types you have. If you have 100% staff with 0 XP points, you still get a 25% combat bonus and a 10% Morale bonus, while with 100 XP you get a 125% combat bonus and a 60% Morale bonus.

Staff has no positive modifiers for troops inside the HQ itself. Staff bonuses are only given to land units. You don't need staff for naval and aerial subformations. Staff combat modifiers are only given in land combat. It is also possible to disband a user-specified number of Supply Points by clicking on the stock amount statistic.

6.5 TRANSFERRING SUBFORMATIONS AND UNITS



To transfer, select a unit to transfer FROM and click the Transfer button. Then, select the target were you want to transfer TO.

You can transfer subformations or part of subformations from one unit to another. If the subformation has enough Action Points to move there on its own, it will. If this is the case the transfer cost will not be specified but instead the "own power" message will display.

Transferred subformations always lose all of their Action Points. Transferring to a unit with the same HQ as the sender, or directly under chain of command of sender, costs 25% Readiness. Transferring to a unit with another HQ as the sender's HQ will cost 75% Readiness. Sending from an HQ to an HQ always leads to 75% Readiness loss. Transfer of air and naval subformations gives no Readiness loss.

If you want to transfer subformations over some distance, then either the source or the target of the transfer must be a HQ. HQs can have land Capacity Points and navy Capacity Points (generated by for example trucks and cargo ships stationed in the HQ) that can be used to facilitate longer distance transfers.

It is possible to transfer land and air subformations over land and over sea. It is not possible to transfer sea subformations further away than they could reach themselves This is because it is hard to imagine ships being loaded on trains/trucks or other ships; except for port to port transfers using the special navy rule.

6.6 NAVAL TRANSPORT

To load a unit, click the cargo ship unit, then select unit to load. To unload a unit, click the unit to unload (on board the cargo unit) and then the location to unload. Naval ships that can carry cargo can take on board units with only land subformations; they can pick a unit up from any neighboring hex.

These units can then be unloaded at any other time, but not on the turn they were loaded.

Take care to keep careful track of supplies on your naval unit if you got passengers aboard. Compared to ships these large armies can consume a lot. If you lose any cargo ships in battle while they are carrying units, the units will also suffer losses.

6.6.1 ANTI-SUPPLY DAMAGE WITH NAVAL TRANSFER

Transfers overseas that are not done under their “own power” are susceptible to Anti-Supply Points damage. You can lose transported units as well as the transfers themselves due to Anti-Supply Points. Damage is calculated by adding all the Anti-Supply Points on all the hexes along the path from source to target. These are added up and the square root is taken. This is the percentage of losses you will most likely suffer. Maximum losses are 95%. Keep in mind that anti-supply on hexes directly outside of the port is multiplied twentyfold in effect; see the blockade rule in the supply section.

For example:

- 1000 Anti-Supply Points on a path gives 33% damage.
- 4000 Anti-Supply Points on a path gives 65% damage.

It is important to know that anti-supply is calculated at the start of the turn! Killing an enemy fleet during your turn and then transferring will not remove the Anti-Supply Points against you. You'll have to wait for next turn for them to disappear.

6.6.2 TRANSFERRING AND STAFF EXPERIENCE

If you transfer staff to another HQ, their experience will drop by 25%. If you transfer non-staff troops, it will half the experience of that [new Power Points / existing Power Points] part of the staff. This rule represents that staff experience is not only made up of experience in “directing battles” but also from getting to know the troops and integrating communications and control with them.

Example: The 1st Army has four units of 50 infantry under its command with a total Power Point value of 200. Current staff XP is 50. We then transfer 50 infantry to units of this HQ to a different HQ. This means that 20% of the staff will lose 25% of its XP.

6.6.3 ANTI-SUPPLY DAMAGE WITH STRATEGIC TRANSFERS OVERSEAS

You can lose transporting units from HQs (cargo ships) as well as the transfers themselves due to Anti-Supply Points. Damage is calculated by adding all the anti-supply points on all the hexes in the trajectory from source to target. These are added up. And then the square root is taken. This is the % of losses you will most likely suffer. Max losses are 90%. Take care to note that with strategic transfers the movement trajectory is from the original hex of the transferred unit to the hex of the HQ and from the HQ to the target.

It is important to know that anti-supply is calculated at the start of the turn! Killing an enemy fleet in your turn and then transferring will not have removed the anti-supply points against you. You'll have to wait for next turn for them to have disappeared.

6.7 AIRCRAFT CARRIER AIR TRANSPORT

If you have aircraft carriers in a naval unit, you can transfer aircraft subformations to it and from it, whether it is on a sea or a port hex. Every aircraft carrier can hold five aircraft. If you lose an Aircraft Carrier, the aircraft will sink with it. If you do a sea attack with a fleet then the aircraft will join in; if however your fleet moves, the Action Points of the aircraft are not expanded. This makes it possible to move and then from the new position of the fleet launch an air attack with the fleet's aircraft.

6.8 ORDER OF BATTLE

The organization of your forces affects staff bonuses and how supply flows. It helps if you make your order of battle flexible so that it can adapt quickly to changes; if it cannot, you will suffer penalties when reordering or making transfers between HQs.

6.9 STAFF EXPERIENCE REPERCUSSION

If you add units to a HQ it will remove a quarter of the experience of the staff. This rule represents that staff experience is not only combat-directing experience but also for a substantial part getting to know their troops and integrating communications and control with them.

Example: The 1st Army has four units of 50 infantry under its command with a total power point value of 200. Current staff experience is 50. We then add another unit to this HQ with 50 infantry. This means that 20% of the staff will lose 25% of its experience.

6.10 RENAMING UNITS AND CHANGING HQ COLOR

By clicking on the name of a unit, you can rename it. By clicking on the counter next to the name of the HQ, you open a palette window from which you can choose a new color.

By clicking on the name of the HQ of a unit, you automatically jump to the map location of that HQ.

6.11 COUNTER NUMBER FORMULA



The numeric value on the counter of a unit is:

$$\text{Counter Strength} = \text{Power Points} * (\text{rdn} / 100) + (\text{Power Points} * (\text{xp} / 100))$$

The Power Points of all subformation types in all included release scenarios are set equal to production cost / 100.

7.0 REGIMES

The players are Regimes, which usually translate as countries but changes based on the scenario. Regimes can be played either by a human or by the AI. Some AI Regimes in some scenarios are “asleep,” meaning their initial setup will be frozen until the moment the Regime is awakened by an event. A Regime has a number of Political Points that usually can be produced in your towns to buy new units, HQs, and Research.

7.1 PEOPLE OF THE REGIME

Each Regime has a people property. The people of the Regime represents the ethnic/social group to which the leadership and elite of this regime belongs. This is important since other people can get modifiers based upon the people group to which this Regime's people belong. However, in a lot of scenarios all the people are universal so this stat will not matter much in that case.

7.2 REGIME BASE MORALE

The Base Morale of units of your Regime is calculated by a combination of Regime Base Morale and People Base Morale.

7.3 REGIME START OF TURN

At the start of a turn of a Regime it auto conquers any neutral hex neighbouring a friendly hex. Also at the start of the turn, zone of control values and recon values on all hexes for a Regime are recalculated.

7.4 DIPLOMATIC RELATIONS

Each Regime has a specific relation with each Regime in the scenario. The diplomatic relations are extremely simple; you are either at war or at peace with another Regime. If you are at peace, you have the choice to declare war. Once at war, making peace is only possible if the scenario enables you to do so by Events or Action Cards. In some scenarios diplomatic blocks on some Regimes may be active, making it impossible for other Regimes to change their relation with this Regime. Through Events, some scenarios will simulate alliances by fusing different Regimes into one.

8.0 ACTION CARDS

In some scenarios you'll find you can play Action Cards. Click the Control Room button to find your Cards. Most Action Cards cost a certain amount of Political Points to play.

9.0 MOVEMENT

If you select a unit, all hexes it can reach in that turn will be highlighted. If you click one of the highlighted hexes, the unit will move there. Pressing [ESC] will abort the move. If you hold the mouse over a highlighted hex it will show the amount of Action Points the move will cost. If a hex is showing little red arrows it means enough Action Points will be left to make an attack.

Ships spend 20 Action Points per hex and aircraft spend 10. However, Research will allow you to buy airplanes with lower Action Point costs per hex. For the other type of movement, check the following table with Action Point cost for the different types of movement versus the different kind of terrain:

Terrain	Artillery	Foot	Horse	Wheel	Tracked	Supply	Transfer
Plains, Urban and Fortification.	50	30	25	20	20	20	40
Light forest	60	30	25	25	20	25	50
Heavy forest	70	30	30	50	40	30	100
Swamp	80	35	35	50	50	35	100
Low mountains	90	40	40	75	75	40	10
High mountains	100	50	50	Imp	Imp	50	Imp

Imp = Impossible

In case of roads, the road Action Point cost will be used instead of that of the terrain. In case of rivers the cost of the move will be increased. If a river is bridged no penalties apply for movement.

Terrain	Artillery	Foot	Horse	Wheel	Tracked	Supply	Transfer
Road	40	30	20	10	10	10	10
Small River	+10	+10	+20	+30	+40	+50	+250
Big river	+20	+20	+40	+60	+60	+150	Imp

Imp = Impossible

Supply movement type is used for supply calculations, subformation upgrade calculations, airsupply drop calculations, and production calculations. Transfer movement type is used for the transfer and strategic transfer orders.

There is a 10 Action Point penalty for each enemy hex you conquer. This reflects the fact you cannot move speedily into enemy territory due to traps, snipers, or small harassing enemy formations that might be present.

You can encounter surprise combat if you move into an enemy-occupied hex where your Recon stat on the hex was low, or the enemy units' Hide stat was high.

9.1 MOVEMENT TYPE

The Movement Type of the unit determines how many Action Points it will cost the unit to move through varying terrain. Note that the type of movement shown is a prediction of which subformation type will be the slowest. The Plains terrain type is used to make this prediction; the prediction may not be valid for all landscapes.

The Movement Type shown is not necessarily that of the subformation type with the lowest speed, since some land and navy theater subformation types are able to carry other land subformation types. The truck can, for example, carry infantry or artillery. Carrying is only possible if the weight of the passenger is lower than the Carry Points of the subformation type in the transport role. So, a truck (Carry Points = 20) can carry two artillery (weight = 10 each), but two trucks (carry points $20 * 2 = 40$) cannot carry one light tank (weight = 25).

Losing cargo ship subformations on open seas will also lead to loss of its passengers.

9.2 CARRYING

Some subformations are able to carry other subformations and thus will make the unit move faster. For example one truck can carry 20 infantry and thus let a unit move at wheeled speed instead of foot speed. However, no subformation can carry another subformation of which individual weight is larger then individual Carry Points. A tank can thus not be carried by a truck.

Also, land theater subformations can carry no naval or air subformations, nor can air subformations carry other air subformations or naval subformations. And for naval subformations carrying air subformations, there is a limitation based on Aircraft Carrier Points. Furthermore please don't confuse carrying with loading/unloading other units on board naval units.

9.3 RECON AND ZOC POINTS

A unit's Recon value on its own and neighboring hexes is equal to its Recon Points. With each hex further away it is 25%, 5%, and 1% of that value. The recon values are cumulative, so more troops means more recon. You can not see a unit, see a unit but have no further information on it, see a

unit with estimates of its subformation composition, or have full recon on a unit. This depends on the number of Recon Points you have on a hex minus the units hide points.

Recon – Hide =	Information
>0	Spot Unit
>30	Partial Info
>250	Full Info

Terrain	Hide value
Plains	0
Urban	20
Fortification	10
Light forest	10
Heavy forest	20
Swamp	10
Low mountains	20
High mountains	30

Also note that scouts and submarines have a Hide Point bonus.

Zone of Control (ZOC) Points only influence direct neighbors of units and are also cumulative, so more troops means more ZOC.

10.0 LAND COMBAT



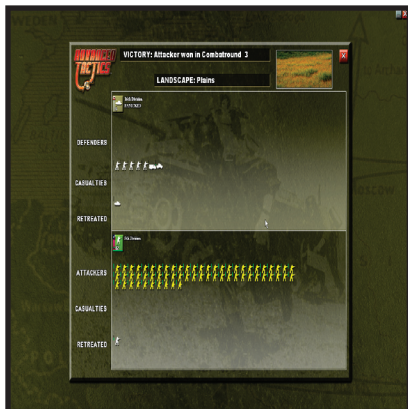
To conduct combat, select an enemy-occupied hex, click the Land Attack button, and then select friendly land units that have enough Action Points to attack the hex.

In a land battle, only land theater subformations join the battle. Any defending air or navy theater subformations will not join the battle. Be careful though, because if the defenders lose the battle, any air and navy in the hex will surrender.

10.1 BATTLE LOOP

A subformation usually consists of multiple soldiers. In battle, calculations for each individual soldier are represented. In every combat round, each soldier will conduct as many attacks as it is allowed to. The soldiers will select enemy soldiers as targets based on chance and what their favorite target is. Each subformation type has favorite values for each subformation type group and a stat called Favorite Tries.

Normally, each attack is immediately followed by a counter-attack against the attacker (unless: (1) the attacking soldier already suffered more attacks this combat round than its Max Attacked stat, or (2) if the defending soldier has already suffered more attacks than its Max Attacked stat). The defending unit's counter-attack will only be half as powerful as the original attack, however.



Soldiers can only attack enemy rear-area soldiers if they have broken through the enemy's lines. An individual breaks through the lines if (1) an individual has been fighting for at least two combat rounds, hasn't been hit for at least two combat rounds, and makes a successful attack itself, or (2) if the soldier has been fighting for two combat rounds, made no successful attack, but has not been even targeted, or (3) if the enemy has only rear-area soldiers left.

A rear-area (backbencher) soldier is colored yellow. Examples of rear-area subformations include staff, artillery, and mortars. A rear-area soldier with artillery cannot hit an enemy soldier who has broken through the lines. This reflects the fact that some weapons are not made for close combat.

When a soldier attacks another soldier, there is an Attack Points vs. Hit Points chance that it hits. Attack Points are different for an attack on a hex or defense of a hex. Both Attack Points and Hit Points are subject to a lot of modifiers.

If a hit is scored, there is a chance of a kill, a chance of a forced retreat, and a chance of a suppression hit. In case of a kill, the attacking soldier gets 30 experience points (only if the target and attacker have the same amount of Power Points; otherwise it might be more or less experience, depending.) In case of a forced retreat the attacking individual gets 10 experience points and the target suffers a 25% Morale drop, loss of all Entrenchment Points, and a 50% Readiness drop. In case of suppression, the target suffers a 50% Readiness drop, a 50% Entrenchment loss, and a 10% Morale drop.

Every combat round costs 10 Action Points and if an attacking unit is out of Action Points, it will retreat. Any unit that reaches its loss percentage standing order conducts an orderly retreat (All individuals get $(\text{retreat \%} + \text{kill \%}) / 2$ Morale penalty). A panic retreat can happen if a units losses and forced retreats percentage exceeds its Morale percentage (All its individuals get a 50% Morale penalty and they all start to retreat in panic). Individuals with a Morale stat lower then 10 will surrender instead of retreating. Any defending unit forced to retreat that cannot retreat will also surrender.

10.2 COMBAT MODIFIERS

Modifier	Attacker Attack Points	Defender Attack Points	Attacker Hit Points	Defender Hit Points
Counter attack modifier for land versus land	-50%	none	-	-
Defending individual is more often attacked this round then its max attacked stat.	-50% and more (Attack Points = $\text{Attack Points} / (1 + (\text{Attacks suffered} / \text{Max attacked}))$)	-50% and more	-	
Terrain modifier	X%	X%	-	-
Staff modifier for non HQ unit and land versus land	Up to +125%	Up to +125%	-	-
Readiness modifier	Up to -100%	Up to -50%	Up to -50%	Up to -50%
Supply consume modifier	Up to -75%	Up to -75%	Up to -75%	Up to -75%
Concentric bonus	Up to 250%	-	-	-
Orderly retreating target	-50%	-50%	-	-
Panicking retreating target	+300%	+200%	-	-
Entrenchment	-	-	-	Up to 300%
Experience modifier	Up to +100%	Up to +100%	Up to +100%	Up to +100%

Modifier	Attacker Attack Points	Defender Attack Points	Attacker Hit Points	Defender Hit Points
Defending individual is attacking over river and not broken through (Presence of a bridge halves the penalty)	-	-	-	Minus X%
Crowding modifier	Minus 1/2 X%	Minus 1/2 X%	Minus X%	Minus X%
Rebel combat	200%	-	-	-
Surprise combat	-	200%	-	-
Amphibious invasion	-	300%	-	-
Paradrop	-	300%	-	-
Battle versus people mod	X%	X%	-	-
Battle for people mod	X%	X%	-	-
Supporting AA from outside hex	n/a	-50%	-	-
Event UnitTypeModifier	X%	X%	-	-

10.3 COMBAT CALCULATIONS RULES

Here are some rules to take into account.

10.3.1 MAXIMUM TIMES ATTACKED

All subformation types have statistic called "Max Attacked." This determined how many times they can be attacked. For infantry this value is five. This means that every attacker after the fifth will, in the same combat round, receive a penalty. This penalty is division of the attack value by (times target is attacked / max attack score of target). The minimum division thus is 1. The max division of the attack value due to the target's max attacked score is 3. This rule represents the fact that at a certain moment maximum firepower is in effect and extra firepower will not help that much. IMPORTANT: the target will not conduct counter-attacks after it has been attacked more times than its Max Attack stat.

10.3.2 CROWDING

As mentioned in the modifier table, crowding (having too many troops in a hex) reduces Attack Points and Hit Points of units in combat. They are actually hindering each other in maneuvering. As a rule of thumb, you can say every Stack Point above the Stack Point maximum for a hex will give you 1% less Hit Points and 0.5% less Attack Points. This represents that you will get more attack power per soldier if you overstack, but at a cost of getting more casualties in combat. Sometimes the situation will call for the need to take a hex at any cost. Also keep in mind that by using concentric attacks, the attacker will be able to get to use more Stack Points than the defender. Attacking from one or two directions gives attacker a Stack Point maximum of 100; three directions gets 150; four directions 200; five directions 250; and from all six directions, 300. Crowding penalties are only given to land units. Out-of-hex AA are not counted towards the defender's stack total.

10.3.3 READINESS AND COMBAT

Due to the fact that Readiness is a more important modifier for the attacker than for the defender, the odds are always slightly stacked against the attacker. This is because during combat rounds, individual combatants take a Readiness loss. The modifying effects of this weigh more heavily for the attacker than for the defender.

10.3.4 ANTISTRUCTURAL DAMAGE TO HEX

Every unit that can do structural damage (artillery and bombers) will do so every round. Damage will be random between 0 and the Anti-Structural Damage statistic. It will also be modified by the Readiness of the unit. Also, damage will be divided by the number of times the attacker has already attacked in this combat round. This rule represents the fact that it is hard to aim correctly (and hit a factory) while being fired upon. Aircraft anti-structural damage is divided by 4 if it is not a strategic bombing mission.

10.3.5 SURRENDER ON RETREAT

When a defending land or naval theater unit retreats, there is a chance it will surrender if its Morale and Readiness are below 25. With a Readiness of 25, the chance is nil, but with a Readiness of 12 it becomes 50%. A zero Readiness makes this a 100% chance the individual will surrender. This is done to reflect the difficulty of retreat for demoralized troops in disarray.

10.3.6 RETREATING

A forced retreat for a unit is counted as an orderly retreat for that unit.

The whole unit will retreat when it is out of Action Points, which will cause an immediate orderly retreat. You can set the max loss percentage of a unit to assure an orderly retreat instead of a panicky retreat.

Whether executing an orderly retreat or a panicked retreat, units have to suffer enemy fire for two combat rounds. The chance, however, of hitting an unit retreating in an orderly manner is 50% harder than in normal combat, while trying to hit a panicking retreator is 200-300% easier than normal. Retreating units will never counter-attack, either. A unit panicking loses 50% Morale, while a unit conducting an orderly retreat will only lose a percentage using this formula: $(\text{forced retreats \%} + \text{losses \%}) / 2$.

10.3.7 FREE MOVEMENT AFTER VICTORY

If you make a succesful land attack, your victorious troops can exploit their victory by moving into the hex at a cost of zero Action Points.

10.4 SPECIAL COMBAT & OPERATIONS

Land attacks are not the only attacks you can conduct, nor are they the only way you can end up in combat. We will now discuss the different attacks and operations.

10.4.1 LAND ARTILLERY



With a land artillery attack, only the subformations with adequate artillery range will join the attack. Enemy land and air subformations will be the targets; naval subformations cannot be targeted using an artillery attack.

An artillery attack breaks off if all defenders have retreated or have been killed, but an artillery attack will never conquer a hex for you. An artillery attack will not break off if you are attacking a location. This is because artillery can also be used to cause structural damage to locations.

Artillery will keep its Entrenchment if it conducts an artillery attack.

Any artillery attack on a location will use all combat rounds available; otherwise it will break off the artillery attack when all enemy toops have retreated or have been killed.

10.4.2 SEA ATTACK



Use this to attack either naval units out on the open sea or naval units inside a port. Naval units will get a defensive bonus if they are in port. Sea attacks don't get an attack bonus. If naval unit has aircraft carriers, available air units will join in any attack. A sea attack on a port stops if no enemy naval vessels are present. Any air units in the port hex will also help defend the hex.

10.4.3 SHORE BOMBARDMENT



A naval artillery attack can only target land hexes. Otherwise it is the same as the land artillery attack; it cannot target naval ships. If you want to attack ships in a port hex, you will have to use a sea attack.

10.4.4 SHORE BATTERIES

If you attack a port with a sea attack, any land artillery stationed in the port will **AUTOMATICALLY** open fire on the attackers. A port attack will not allow you to target land artillery; to do that, you must conduct a shore bombardment.

10.4.5 AIRSTRIKE



This attack is made up of aircraft only. Aircraft can come from land or naval units (with Aircraft Carriers). Not only will the attackers face the defenders of the hex, but also any anti-air guns in range of that hex (which cannot be destroyed during combat) as well as any intercepting enemy non-rear-area air subformations (fighters, that is). Rear-area air subformations never intercept.

10.4.6 INTERCEPTING

Fighters will **AUTOMATICALLY** intercept an attack on a hex within half their normal range if their Readiness is 100%. If their Readiness is lower, their intercept range will be shorter. At 100% Readiness their intercept range is 5; if 80-99%, their range is 4; if 60-79%, their range is 3; if 40-59%, their range is 2; and if 20-39%, their range is 1. If their Readiness is lower than 20%, their range is zero. Fighters will only intercept if their Readiness is equal or higher to their intercept standing order.

10.4.7 PARADROP



Use this operation to drop a unit of paratroopers behind enemy lines. The operation is interceptable by enemy air power. All aircraft will retreat after the 4th round of combat. Paratroopers will only enter combat in round 5. This means that it is possible that paratroopers can be destroyed while still on board their transport airplanes by enemy fighters or flak. Paradrop battles take as many combat rounds as necessary.

10.4.8 STRATEGIC BOMBING



Use this operation to damage enemy locations and hurt their production or destroy fortifications, airfields, and ports. This type of operation is interceptable by enemy fighters in range of the hex you want to focus your attack on. Also, enemy anti-aircraft within range will join the fight.

Keep in mind that a damaged location does not only produce less, but also gives Readiness penalties to aircraft stationed there, gives Readiness penalties to ships stationed there, and gives penalties to supply leaving or entering the location to or from a sea hex.

You can also destroy bridges by strategic bombing. This could be a useful strategy to disrupt an enemy's supply network.

If both a location and bridges are present in a hex, you can choose which one to attack.

11.0 SUPPLY AND ANTI-SUPPLY

Your Headquarters have already received production from locations, including supplies. The distribution system is pretty simple. All units with a higher HQ calculate how much they need. If they are HQs themselves and have subordinate units, they take the requests of the subordinates along with their request to a higher HQ. Then supplies are sent from the top HQ on down.

Supply needed by units is dependent on their Readiness. Subformations with low Readiness need more supply. Up to 150% of basic supply can be requested every turn. However, the request can be as low as 50% of basic supply if unit is fully stocked and at 100 Readiness (unless you put the Supply Setting below 100%).

50% of basic supply need is needed to stabilize Readiness. Up to 150% basic supply is needed to regain Readiness. The first 10 Readiness loss costs 50%, while the next 90 Readiness costs 100%. This rule reflects the higher supply need of combat, losing equipment, and ammo.

Example 1: Subformation X has a basic supply of 200 points and can store up to 400 points. It has a Readiness of 100. It has 0 points stored and will thus request a full basic supply of 200 points. It then uses only half because its Readiness is 100 and will therefore put 100 points in stock.

Example 2: Subformation Y has a basic supply of 200 points and can store 400 points. It has 350 points in stock and its Readiness is 90. It will thus request a full basic supply of 250 points. It then uses 200 points due to its needed Readiness recovery, then puts 50 points in stock. If unit Y had a Readiness of 45, it would have requested 300 points and used 350 points, draining its supply stock to 300 points.

11.1 AIR SUPPLY

If units are cut off from supply via land, it is possible to manually supply them from the air. Air supply drops can be intercepted by enemy fighters. Losing transport airplanes due to intercepting fighters will result in a loss of supply points. If the target hex is not an airfield, half of the supply is lost. If the target hex is a damaged airfield, up to 50% will be lost depending on the scale of damage. The amount of supply points that makes it in is then distributed over all units in a supply range of 250 Action Points of the hex, though if a unit is more than 100 Action Points away, it will get a max of 75%

of its need. If a unit is more than 150 Action Points away, it will receive a max of 50%, and if more than 200 Action Points away, it will receive a max of 25%.

11.2 ANTI-SUPPLY POINTS

Anti-supply is in the game to reward and reflect the effects of a player having naval and aerial superiority over the seas. It means the player that does not have this superiority will suffer significant losses (or even almost total losses) in anything that has to be transferred over water.

Supply travelling over water is susceptible to anti-supply damage. Points that are destroyed by anti-supply will be reported. Anti-supply is a specially-created concept to model the effect of not having superiority of force while needing to transport supply across it. Enemy ships and aircraft will exert anti-supply points, causing you losses over everything you transfer. (It is possible in the Editor to give aircraft anti-land supply points too, but these will only cause losses to supply, not to transfers and strategic transfers).

11.3 CALCULATION OF ANTI-SUPPLY

All enemy subformations able to exert anti-supply will do so. Navy subformations will exert their anti-supply points unless the player has set standing order of the unit they belong to, to no anti-supply.

Air subformations optionally, however, will only do so if the hex in question cannot be intercepted by one of your units at the start of turn. If you change your air formations' standing orders to intercept, this will only help for the next turn. Preventing anti-supply points on your hexes or transfer paths by setting your air units to intercept does not have an immediate effect. This simulates the effect of trying to keep air cover while trying to maintain air supremacy, and must thus be challengeable by enemy air formations.

If you destroy enemy naval units or air units, this will remove their anti supply points immediately from play.

The amount of anti-supply points enemy units have available depends on their Readiness.

A HQ that receives production of air units has its intercept standing order always put to never because otherwise producing one aircraft a round could prevent enemy aerial anti-supply points.

11.4 ANTI-SUPPLY EFFECT

You can lose a percentage of supply points or transfer transporting subformations at HQ (cargo ships) as well as the transfers themselves due to anti-supply points. Damage is calculated by adding all the anti-supply points on all the hexes in the trajectory from source to target. These are added up to a max of 9,000 points. The square root is then taken and the result used as the percent of damage suffered.

11.5 HARBOR BLOCKADE

You can use your naval forces to effectively blockade enemy ports. To blockade a port, put your fleet in front of the enemy harbor you want to blockade. All hexes next to the harbor and your fleet will then get its normal anti-supply points multiplied by 20.

11.6 DISTANCE PENALTY

Supplies are sent by the supply movement type.

- If supplies take more than 100 Action Points to reach their destination, only 75% of supply will be delivered.
- If supplies take more than 150 Action Points to reach their destination, only 50% of supply will be delivered.
- If supplies take more than 200 Action Points to reach their destination, only 25% of supply will be delivered.

11.7 PORT DAMAGE OR NO PORT

Supply can leave land by ports and enter land with or without ports; however, if there is no port at the destination, there is a penalty of 150 Action Points. If there is a port but it is damaged, a max penalty of 150 Action Points is given.

11.8 UPGRADING A SUBFORMATION

Click a subformation to access the info screen. Here is the option, if you have the necessary research completed, to upgrade a subformation. However, this will cost supply points, usually 10% of the production cost of the subformation type, which must be available at a HQ in the chain of command above the upgrading unit. You can select from which HQ to use supply points for upgrading.

12.0 SHORTCUTS

We strongly advise players to at least use the shortcuts for Moving [M], Attacking [A], Confirming [SPACE], and cancelling [ESC].

M	Move
T	Transfer
S	Strategic Transfer
H	Set HQ
L	Load Unit onboard
U	Unload Unit
N	New Unit
R	Build road/bridge
A	Land Attack
B	Artillery Attack
Z	Air Attack
X	Bombing run
O	Set town HQ
P	Set production
F1	Strategic Map
F2	Decision Room
ESC	Cancel
SPACE	Confirm (like mouse click), except with Move where it also cancel.

13.0 THE GAME EDITOR

13.1 INTRODUCTION

There are two levels of editing.

You can use the generic masterfile on a new map and put regimes, units, and locations on it. We will discuss this in basic editing chapter. This is also referred to as editing a scenario while using a masterfile.

You have complete freedom to design any sort of scenario you might want. You can change all the subformation types, the terrain, research fields, item types, road types, and river types. You can also change graphics and statistics. Also you can set a lot of rule variations, so you can rewrite a lot of the rules used in the game. Next to that you can set some behavior of the AI and disable some actions for players. We will discuss this in the advanced editing chapter. This is also referred to as making a scenario without a masterfile, or creating a masterfile.

And then there is the event engine. It is very powerful and will require a chapter on its own. We will discuss this in the event chapter.

13.2 EDITING

A scenario is basically a big database of information and statistics. This chapter will mainly try to tell you what all the statistics mean and how different data types interact.

The main data types you can edit are:

Data Type	Amount:	Uses Groups
People	Unlimited	Yes
Terrain	Unlimited	Yes
Rivers	Unlimited	-
Roads	Unlimited	-
Bridges	1	-
Location Types	Unlimited	Yes
Item Types	Unlimited	Yes
Subformation Types	Unlimited	Yes
Research Fields	Unlimited	-

Data Type	Amount:	Uses Groups
Action Cards	Unlimited	-
Events	Unlimited	Yes
General Scenario Info	1	-
Game Variables	500	-
Player Configurable		
Optional Rules	10	-
Group Names	100 per data type using the group system	-

13.2.1 WHAT ARE GROUPS?

Understanding this concept is one of the hardest things, since it is a bit counterintuitive. With each of the data types that use this system, you have to set every type to a group number. Only group numbers from 0 to 99 are valid to use. The group numbers are used if one data type makes a reference to another. More about this in the discussion of the separate data types further on.

- The group numbers are used a lot and you can give the groups names too.
- The group names of Item types are used to sort the items in the production window.
- The group names of subformation types are used to sort casualty reports.
- The group names of people, terrain, location types, and events are just there to help you keep track in the editor of what you are doing.

Keep in mind that a data type only uses groups if there is a matrix situation where every type of the data type has a different stat for all types of another data type.

There are also the movement type groups which are used by the landscape types and the subformation types. The names of the movement types groups are also shown in game to the player.

13.2.2 WHAT IS A MASTERFILE?

If a scenario has a masterfile some of its data is overwritten by that of the masterfile which is loaded with the scenario. Almost all scenarios in the game use the generic masterfile. This has been a great way to ensure that all scenarios are using the same data. As you are making your own scenarios you are however perfectly free to let a scenario not load a masterfile and change anything you want.

The following data is overwritten: Road types, River types, Location types, Subformation types, Item types, Landscape types, Action Cards, Events, and Research fields.

Group names specified in masterfile will also overwrite those used in the scenario using the masterfile. But you can add extra group names because only the group numbers that are named in the masterfile overwrite those of the scenario.

All rule variations are imported from the masterfile, except the variations used for disabling options in a scenario.

Also the scenario's NoAIAdvice flag is overwritten by that of the masterfile.

13.2.3 MASTERFILES READ PEOPLE SETTING

If read people is toggled on, then people and people group names, sf type people settings, item type people settings, loc type people settings, and research people settings are imported from masterfile also.

This is toggled off by default, as are people's and people group names, sf type people settings, item type people settings, loc type people settings, and research people settings. Any of these you make are not overwritten by the masterfile.

13.2.4 USING A MASTERFILE AND EXPANDING ON IT THROUGH A SCENARIO

However, you are free to add data types to a scenario by disabling the masterfile, adding stuff and then selecting the masterfile again. This is because the masterfile only overwrites up to the number of records it has defined, but only do so if you are sure the masterfile will not be expanded any more. Otherwise your scenario's functionality will not be guaranteed for the future.

13.3 PEOPLE

People make it possible to model nations, ethnic groups, races, species, whatever you want. They have the following statistics:

13.3.1 PEOPLE GROUP

Defines which people group number these people belong to. Used by locationtypes, research fields, and subformation types.

13.3.2 BASE MORALE

For every possible people group the regime's people belong to, the base Morale is specified.

13.3.3 PRODUCTION MODIFIER

For every possible people group the regime's people belong to, the production modifier is specified. 1.0 = normal production, 0.5= half production, 2.0 = double production, and so on.

13.3.4 COMBAT FOR MODIFIER

For every possible people group the regime's people belong to, the combat modifier is specified. 1.0 = normal power, 0.5= half power, 2.0 = double power., and so on. Note that this can be used to model reluctant recruits.

13.3.5 COMBAT VS. MODIFIER

For every possible people group this people could fight against, the combat modifier is specified as: 1.0 = normal power, 0.5= half power, 2.0 = double power, and so on. Note that this can be used to model fear or racial superiorities; maybe it is best useful for a fantasy-based scenario.

13.3.6 REGIME COLOR

If >-1 , counters of units with these people will be colored as if they belonged to the specified regime #.

13.4 TERRAIN, RIVERS, AND ROADS

A hex always has terrain. Also it can have a location in it, bridges, and rivers.

13.4.1 TERRAIN (LANDSCAPE) TYPE

The terrain (or landscape) type of a hex determines the Action Point cost for the different movement types there are. Also the landscape type determines the auto-entrench and maximum entrench values for the different classes of subformation types there are. Next to that a landscape type belongs to a specific ground type group. This ground type group determines what sort of location types can be built on the hex. Furthermore, the landscape type determines if roads can be build on this hex.

13.4.2 RIVER TYPES

Each river type has its own combat modifiers and move-over modifiers for each class of subformation types. Also each river type has its own modifier for the Engineer Point cost and structural points of a bridge over it. This is reflecting the larger cost and size of bridges over bigger rivers. The base Engineer Point Cost and Structural Points of a bridge can be found in the Rule List.

13.4.3 ROAD TYPES

Each roadtype has its own movement cost overrides for each movementtype that exists. The cost in Engineer Points and the type of roads that engineers build can be found in the Rule List.

13.5 LOCATION TYPES

Each hex can have one location. A location has a people type, an amount of structural points, and a specific location type. The location type mostly determines what the location can do, although the people the location has influences what it can produce.

13.5.1 GROUND TYPE

Every locationtype has a list of ground types it can be constructed on.

13.5.2 PEOPLE GROUPS

Every location type has a list of people groups (each people belongs to one such group) that a regime must belong too in order to build this location type.

13.5.3 ITEM GROUPS

A list of item groups (each item type belongs to an item group) that can be produced at this location type.

13.5.4 LOCATION TYPE GROUP

The number of the location type group.

13.5.5 MINIMUM DISTANCES

The minimum distance the hex you want to build this locationtype on has to be away from other locations of specific locationtype groups.

13.5.6 PRODUCTION POINTS

If >0 this location type can produce things worth X production points.

13.5.7 IS PORT

If "true" then this location has the functionality of a port.

13.5.8 IS AIRFIELD

If "true" then this location has the functionality of an airfield.

13.5.9 ON DESTRUCT = > LANDSCAPETYPE/SPRITE

If the number of structural points of this location type is brought back to 0, this determines if the location will destruct. If its value = -1 it will not. Otherwise, the value will indicate the landscape type the hex will get when the location reaches 0 structural.points.

13.5.10 AUTORECOVER POINTS

At start of every turn, after production, the structural points of this location will recover this number of structural points for free.

13.5.11 INVINCIBLE

If “true” this means the location type cannot be damaged in any way and its structural points will always stay at maximum.

13.5.12 BUILDABLE

if “true” engineers can build this location type.

13.5.13 ENGINEER POINT COST

The amount of Engineer Points a unit needs to build this location type. Also used to calculate how many Engineer Points are necessary to repair this location type. If the Engineer Point cost is < 1 , the location type cannot be repaired.

13.5.14 SUPPLY POINT COST

Optionally used. This is the amount of supply the HQ of the constructing unit must have.

This is meant for scenarios where building new production centers is an option; hopefully used together with minimum distance rules to avoid overcrowding and make every part of the map valuable.

13.6 ITEM TYPES

If you are playing the game item types are hidden from the user. But for designers of scenarios we want to give some info about item types. Locations, mentioned earlier, can produce item types. These itemtypes have the following statistics:

13.6.1 ITEM GROUP

To which item group number this item type belongs. It is used by location types to list what can be produced.

13.6.2 IS SUPPLY

If “true” this item type is supply points.

13.6.3 IS POLITICAL POINTS

If “true” this item type is political points.

13.6.4 IS SUBFORMATION TYPE

If a number > -1 is specified it means this item type is the production of the specified subformation type.

13.6.5 GAME SLOTS NEEDED

You need to have specified game slots at a value higher than or equal to value specified in order to be able to produce this item type. Up to five game slots can be specified.

13.6.6 REGIME SLOTS NEEDED

You need to have specified regimeslots at a value higher than or equal to value specified in order to be able to produce this itemtype. Up to 5 regimeslots can be specified.

13.6.7 RESEARCH NEEDED

You need to have specified research fields in order to be able to produce this item type. Up to five research fields can be specified.

13.6.8 PRODUCTION COST

Specifies the production point cost. See location type production points.

13.6.9 MULTIPLIER

Usually this is 1. Meaning, one supply production point or subformation is produced. By changing the multiplier, you change the quantity produced.

13.6.10 BLOCKS

If > -1 the specified itemtype is blocked for the user, if you are able to build this item type. Usually this is used to block obsolete subformation types from being produced.

13.6.11 IS REGIME SLOT

If > -1 then when this itemtype is produced then 1 point is added to the regime slot in question. Note: this could be used to allow the player to spent production points in order to raise an event.

13.7 SUBFORMATION TYPES

Every subformation is of a specific subformation type. These subformations have a lot of statistics determining movement costs to combat results. We will discuss all the statistics of a subformation type here.

See section 16.0 for more detail on the different subformation types.

13.7.1 DESCRIPTION

If you don't want to know what is going on behind the hood in detail, just read this description.

13.7.2 HITPOINTS

Hit Points determine how easily this subformation type can be hit.

13.7.3 CLASS (SUBFORMATION TYPE GROUP)

Every subformation type belongs to a certain class (such as infantry, armor, or fighter aircraft). It determines the attack score of an opponent against this subformation type and it determines auto and max entrench levels.

13.7.4 SUPPLY USE

This is the max amount of supply a subformation type can request and consume. If Readiness is 100 it will consume only half of this.

13.7.5 SUPPLY STOCK

This is the max amount of supply a subformation type can keep in stock with it. The more it can keep, the longer it will be able to stay combat ready while cut off or otherwise out of supply.

13.7.6 ROLE

There are two sorts of roles: Frontline and Rear Area ('backbencher'). Rear Area units can only be attacked by enemies that have broken through the line and are therefore much less prone to fire than frontline subformation types.

People

13.7.7 ART RANGE

Artillery Range. If this is >0 you can use this land or navy subformation type to do artillery or shore bombardment attacks.

13.7.8 AA RANGE

If this is >0 this subformation type will also be able to help units in other hexes under attack of aircraft.

13.7.9 KILL% AND RETREAT%

If your subformation type scores a hit on a target a random number between 0 and 100 is used to determine what sort of hit is scored. The kill and retreat percent gives the chance this subformation type scores a kill or morale hit. The remainder of the 100% after subtraction of kill and retreat percent is the chance that you only drain the defender of Entrenchment, Readiness, and Morale.

13.7.10 ATTACKS AND MAXATTACKED

These determine the max amount of attacks this subformation type can do in 1 combatround and the max amount of times it can be attacked it self. Note that so called counterattacks don't count for the number of attacks.

13.7.11 FAVORITES

For each class of subformation types there is a favorite score. This score determines which target this subformation type will be most likely to attack.

13.7.12 FAVORITE TRIES

This score determines the number of random picks out of all enemy individuals, in a battle, to pick the target out off with the highest favorite score for this subformation type. The higher this score is, the more likely it is this subformation type will always attack its most favorite targets. If it is one it means the subformation type just picks targets at random.

13.7.13 EVADEKILL%

This is the percent chance of a unit to evade a killing shot.

13.7.14 INIT ATT AND INIT DEF

There is an initiative score for the subformation in offensive and defensive role. The initiative determines how early in a combat round the subformation type can do its first attack.

13.7.15 AIR RANGE

This is the range, in hexes, of the air unit.

13.7.16 WEIGHT POINTS

Used for calculation to see if it can be carried. Also important for cost of transferring this subformation type.

13.7.16 CARRY POINTS

If >0 it means this subformation type can carry this amount of weight points.

13.7.17 TRANSFER CAPACITY POINTS

Based on the theater of the subformation type these capacity points give Land Capacity Points and Navy Capacity Points to Headquarters.

13.7.18 RECON

Amount of recon points this subformation type gives.

13.7.19 HIDE

Amount of hide points this subformation type gives.

13.7.20 ENTRENCH

Amount of Entrenchment points this subformation type will give at start of turn.

13.7.21 ZOC

Amount of ZOC Points this subformation type exerts.

13.7.22 STACK POINTS

Amount of stack points this subformation type contributes to the stack value in a hex.

13.7.23 POWER POINTS

Power Points determine how much staff points a subformation type ideally needs. Also it determines the value displayed on the counter. Also it determines the experience earned for hitting it or killing it. Power Point is an abstract value that usually is more or less equal to the production cost of the subformation type.

13.7.24 THEATER

Land, Navy, or Air. As you might suspect there are pretty different rules for these theaters.

13.7.25 INTERCEPTING

This is the range, in hexes, that the air unit can intercept out to.

13.7.26 PARADROP

If this subformation type can be used to paradrop. All subformation types can be flown to other airfields, but only paradropable ones can be dropped in enemy hexes and outside airfields hexes.

13.7.27 CARRIER

Amount of space this naval subformation type has to store planes on deck. These planes can always be used for combat missions if stationed on a carrier.

13.7.28 ANTI-STRUC POINTS

Used in bombing attacks and used to calculate collateral damage of combat.

13.7.29 BLOW POINTS

If >0 this subformation type can attempt to blow up locations and bridges.

13.7.30 ANTI-SUPPLY POINTS

If >0 this subformation type exerts a certain radius of anti-supply points. These points hinder enemy supply and transfers. Can be specified separately for sea and land anti-supply.

13.7.31 ANTISUPSEA

This determines the radius of anti-supply points at sea.

13.7.32 ANTI-SUPPLY RANGE

This determines the radius of anti-supply points the subformation type exerts. It is specified in max move cost.

13.7.33 STAFF POINTS

Amount of staff points this subformation type gives to a HQ.

13.7.34 STAFF COMBAT MODIFIER

If Staff Points >0 it specifies the max combat bonus in percentage this staff subformation type can give.

13.7.35 STAFF MORALE MODIFIER

If Staff Points >0 it specifies the max Morale recovery bonus in percentage this staff subformation type can give.

13.7.36 ENGINEER POINTS

If >0 then this subformation type generates this amount of Engineer Points, which can be used to repair and construct locations, roads and bridges. (depending on scenario)

13.7.37 ATTACK POINTS

A subformation type can have different Attack Points for offensive and defensive role. Attack Points determine how easily a subformation type can hit another subformation type. These Attack Points can be different for each class of targets.

13.7.38 LANDSCAPE TYPE MODS

For each type of terrain a subformation can have a modifier for attack and defend Attack Points.

13.7.39 MOVEMENT TYPE

The movementtype determines the amount of Action Points it costs to move into a certain hex. See landscapes and roads and rivers for more information.

13.7.40 UPGRADE

Most subformation types can be upgraded to another subformation type for a certain cost in supply points. (and optionally if a certain xp level has been reached).

13.7.41 PEOPLE GROUPS

A list of peoplegroups that can be used to make these sort of subformations.

13.8 ACTION CARDS

You can set the color scheme to values 0-4 to separate one card from another.

You can set a number of political points it costs to play this card.

You have to select an event picture number that is used as the cards graphics. The event pictures can be loaded through the general settings menu.

Most important of all you have to select an event number that is executed upon playing this card. In that event you can then specify what this card will do.

13.9 RESEARCH FIELDS

If you can build a specific itemtype depends on if you got the research field. The research field data object is fairly small and mainly holds a reference to a sftype number whose graphic it will show in the research window if the player looks at this research field as well as optional prerequisite research fields the player must have researched before he can research this field. The block property makes it possible for you to hide a specific other research field on the moment this research field has been researched. The techlevel stat is just a way to group them and to be able to quickly assign regimes

in the editor a specific number of researchfields. Furthermore in the random game generation screen it is possible to assign all regimes to level 1 research.

14.0 EVENTS

Events are small scripts written in a very simple coding language. These scripts enable the designer of a scenario to do some nifty stuff from showing messages, to declaring winners to adding units... and a lot more!

You can make as many events as you want. Every event consists out of as many commands as you want. Each command can be one of the following:

14.1 CHECK – END CHECK

In a check command you can check if a variable, a number or the result of a Check function (see below) is bigger, smaller or equal to a certain other variable, number or Check function result. If the result is true the next command is executed, otherwise the command after the End Check command is executed. You can nest these checks-end checks as deep as you want.

14.2 SET VAR

Using this command you can set a variable to the value of another variable, number or result of a check function. There are game variables and regime variables. Both are persistent through out the whole game. There are also temporary variables and those are reset for every new event that is executed.

14.3 EXECUTE

Using this command you can execute a Execute function (see list below).

14.4 LOOP – END LOOP

Using this command you can let a variable get added 1 every loop while the end loop will make the next command executed the loop command again until a certain specified value is reached after which the next command executed is the one below end loop. You can nest these loops as deep as you want and mix them with checks and end checks.

14.5 EVENTS: EXEC LIST

ExecGiveRegimePP (RegimeNr, Amount)

Gives specific regime a certain amount of political points.

ExecChangeDip(Regime1, Regime2)

Changes the relation these regimes have with each other. If war it becomes peace and vice versa.

ExecSetWinner(Regime)

Sets specified Regime as winner of the game.

ExecAddRegimeMorale(Regime , Amount)

Adds this amount of points to the regime base Morale. If negative it subtracts this amount.

ExecAddUnit(Predef#, X , Y , Regime , Name of new Unit)

Adds a identical copy of predefined unit on hex x,y for regime specified. And renames it with name given in variable 5.

If the hex is owned by another regime then specified regime and is occupied a battle will follow with the new unit attacking with REBELATTACK mode. If the name you give it is less then 2 characters it will get the next standard name of the regime it is assigned to.

ExecLoad(Filename)

Loads this scenario. Use this event to link scenarios and make campaigns. Base directory is “/scenarios/”

ExecSetSleep(Regime , Value)

Sets specified Regime to Sleep with value 1 and to awake with value 0. A regime that is a sleep does not get a turn, nor production, nor anything else, it is frozen.

ExecJoinRegime(Losing Regime , Added to Regime, Including Units)

The Losing Regime loses all hexes to the other regime. If you set including units = 0 then all losing regimes units are removed from play.

If you set including units =1 then all units of the losing regime switch side to the other regime.

ExecMessage2(Regime1, Regime2, OverwriteScnDescription, FrontPicture#)

Gives Regime1 and Regime2 a message.

If you specify -1 for Regime1 all regimes will get this message.

If you specify -1 for Regime2 only Regime1 will get the message.

If you set OverwriteScnDescription=0 then it will not overwrite the scenario description.

If you set OverwriteScnDescription=1 then it will overwrite it.

If you specify a higher number then -1 for the frontpic this event picture will be shown above the text.

You can use the following codes inside the message:

[regimenam]nr[/regimenam]

[hexname]x,y[/hexname]

[unitname]nr[/unitname]

[gamevar]nr[/gamevar]

[regimevar]regimenr,var nr[/regimevar]

[tempvar]nr[/tempvar]

Tempvar is done first so it is possible to write for example: You have been attacked by [regimevar]
[tempvar]1[/tempvar][regimevar].

BlockEvent()

The event in question is blocked and will never be tested for again.

ExecChangeRegimeName(RegimeNr, New Name)

Gives regime number in question a new name.

ExecJoinArea(AreaSlot, AreaCode, ToRegimeNr, UnitsFleeToAreaCode)

All hexes that have in the AreaSlot number specified the value of the AreaCode specified will change to being owned by the specified regime. Any units on these hexes will flee to the closest hex that has the UnitsFleeToAreaCode value in the AreaSlot number specified.

Special rule is that UnitsFleeToAreaCode = -1 means that all those units are destroyed.
Special rule is that UnitsFleeToAreaCode = -2 means that those hexes are kept in control of the original owner

ExecDisbandUnits(Regime#, People#)

Disbands all units of the regime number specified of the people number specified. If people#=-1 all units of the regime will be disbanded no matter what people make them up.

ExecChangeDipBlock(Regime)

If regime was DipBlocked... it is now unblocked.. and vice versa.

ExecDoStructuralDamage (x , y ,damage)

If there is a location on x,y it gets specified damage in structural points. specifying a negative damage value will add these structural points. And if it then exceeds max.. it is maximized.

ExecSetLandscape (x , y , terrain #)

Sets the terrain # of that x,y to value specified. Dont forget to change the sprite too to get the correct graphics! (see terrain subscreen to see terrain numbers and sprite numbers).

ExecSetSprite (x , y , sprite #)

Sets the sprite to be used for hex x,y.. (see terrain subscreen to see terrain numbers and sprite numbers).

ExecSetSlot(x, y, AreaSlot, AreaCode)

Sets the value of the areaslot number (0-9) to the code specified on hex x,y.

ExecChangePeopleProdMod (People#, PeopleGroupOwner#, ProdMod)

Sets the production modifier for the specified people, owned by a regime with a people from the specified peoplegroup to prodmod%. Setting prodMod to 100% means normal results. More than 100% is a bonus and less is a penalty.

ExecChangePeopleCombatMod (People#, PeopleGroupOwner#, CombatMod)

Sets the combat efficiency for the specified people, owned by a regime with a people from the specified peoplegroup to Combatmod%. Setting CombatMod to 100% means normal results. More than 100% is a bonus and less is a penalty.

ExecMoveTypeModifier (MoveType#, Percentage)

Set specified movetype to slower or quicker... 100 = normal percentage.. 150= 50% more action point costs to move. Handy to simulate for example wheater conditions or petrol shortage.

ExecUnitTypeModifier (UnitType#, Percentage)

Sets the specified Unittype to better or worse combat results. 100% = normal.. 150%= 50% better combat results. Handy to simulate special conditions for just some types of troops... like infantry only or air only.

ExecWheaterColor (red, green, blue)

Give values of 0 - 255 to the 3 color components. The PreHex tile of the terrain in question will be colourized that colour. (250,230,210) for brown, and (255,255,255) for white. Use the rulevar 302 to colour the highlight colour if it does not show up well with the new background colors.

ExecChangeRiver (x , y , from #, too #)

Changes all rivers of specified type to that of other specified type.

ExecChangeRoad (x , y , from #, too #)

Changes all roads of specified type to that of other specified type.

ExecChangeBridge (x , y , direction, value)

Direction 0 is North, direction 1 is northeast, direction 2 is southeast, direction 3 is south, direction 4 is southwest, direction 5 is northwest. a value of 0 or higher sets a bridge on hex x,y facing specified direction. A value of -1 removes a bridge or sets no bridge if there was none.

ExecChangeAIVP (x , y, regime , aivp value)

Gives extra VictoryPoints to certain hexes. These are only used in the calculations of AIs. You can specify them seperately per regime.

ExecChangeLocationType (x , y, loctype, people)

Sets a location of loctype specified on hex x,y and populates with specified people. If you specify loctype = -1 then any location on x,y is removed. If there was already a location there it is overwritten.

ExecGiveSupply(x, y , amount)

Gives a specified amount of supply to the top HQ of the HQ closest to x,y. If can reach no HQ the supply is not given.

ExecSetRuleVar(rulevar number, value, decimal)

Sets specified rulevar to the specified value. And if decimal=1 then it divides this value by 100 since for some rulevars decimals are needed.

ExecChangePeople(x, y, people)

Sets the people of a location at x, y to specified people number.

ExecGiveReinforcement(x, y, predef unit#, multiplier)

Gives the contents of the predefined unit as reinforcement to the top HQ of the HQ closest to x,y. The contents are multiplied by the multiplier. if no multiplier is specified then x1 multiplier is of course used.

ExecGiveActionCard(cardnr, regimenr)

Gives one specimen of this type of action card to the specified regime nr.

ExecReadinessLoss(regnr, ppl, loss%, chance%)

Every subformation inside a unit of regime nr X with ppl Y has a Z% chance to lose W% of its Readiness.

ExecAddHistoricalActionCard(cardnr, regimenr)

Gives one specimen of this of action card to the played action cards stack for that regimenr. if you put -1 for regimenr, all regimes will see this card in the played action cards stack.

ExecRemoveHistoricalActionCard(cardnr, regimenr)

Removes that type of card from the played action cards stack for that regime. If you put -1 for regimenr, all regimes will have this card removed.

ExecHQPeopleConflict(regnr, pplnr, morloss%, chance%)

Complicated and you can only use if you are using historical units. Will give a certain chance to get morloss% for his.units that have specified people that are subject to a hq of a different people or a hq without a forced people. Avoid this function if not using historical units. Tempvar[999] remembers the amount of units affected.

ExecLTReadinessLoss(regnr, pplnr, rdnloss%, Terrain Type Nr#)

All subformations of people number X in service of units of regime nr Y lose specified % of Readiness if they are located on a hex with landscapetype nr specified. People = -1 means all people are affected. If regnr= -1 all regimes are affected. Tempvar[999] remembers the amount of units affected.

ExecLTMoraleLoss(regnr, pplnr, morloss%, Terrain Type Nr#)

All subformations of people number X in service of units of regime nr Y lose specified % of Morale if they are located on a hex with landscapetype nr specified. People = -1 means all people are affected. If regnr = -1 all regimes are affected. Tempvar[999] remembers the amount of units affected.

ExeSetItemCost(itemtype#, cost)

Sets the production cost of itemtype number specified.

ExeSetBaseMorale(regimenr, baseMorale)

Sets the baseMorale of specified regime.

ExeSetVP(x, y, vp)

Sets the amount of Victory Points of hex x,y.

ExecRemoveActionCard(cardnr, regimenr)

Removes that type of card from the action cards hand for that regime. If you put -1 for regimenr, all regimes will have this card removed. Can remove multiple card if player had doubles in hand.

ExecPlayActionCard(regimenr, cardnr)

Let that regimenr play that card nr. If it has cardnr one of this type is removed. If it does not have it the card is executed anyway. If you dont want this test if regime has card before calling.

ExecExecuteEvent(eventnr)

Extremely powerfull and can cause code loops so watch out. Never have a execute(2) in event 1 and a execute(1) in event 2. That would cause a loop. But it used wisely and in tandem with game vars it can be used to simulate functions and subroutines from normal coding languages.

ExecActionCardName (actioncard nr , name)

Gives action card nr a new name.

ExecActionCardPPCost (actioncard nr, new cost in PP)

Gives action card a new political point cost.

ExecReplaceLandscapeSprite(terrain #, new filename)

Loads a new sprite for a terrain type. This is an easy way to do for example more diversified wheater effects. Filename must be inside the graphics directory. So don't say: graphics/default/plain/plain.bmp, but: default/plain/plain.bmp

ExecDisableItemType(itemtype #)

Makes it impossible for anybody to produce this itemtype. Can be usefull to block small things like blocking pp or supply production.

ExecMutateSfType (areslot, areacode, from sfstype, too sfstype)

Affects only unit in specified areslot with areacode value on a hex. Every unit with sfstype specified will be replaced by too sfstype.

ExecSingleMutateSfType (areslot, areacode, from sfstype, too sfstype)

Affects only unit in specified areslot with areacode value on a hex. 1st individual in 1st subformation of 1st unit with sfstype specified will be replaced by too sfstype.

ExecSingleMutateXY(x, y, from sfstype, too sfstype)

Affects only unit in specified in hex x,y. 1st individual in 1st subformation of 1st unit with sfstype specified will be replaced by too sfstype.

ExecAntiSupplyRangeMod(Movetype #, Percentage%)

Changes the anti supply radius of all sftypes of a specific movetype. This is handy to use if you are changing movecosts of movetypes and don't want to have insane anti supply radiuses. Specifying 100% will keep things as it is. Specifying 50% will half the radius. Keep in mind that the changes to the sfstype data for that game is permanent. If you want to undo a 50% order, you'll have to give a 200% order next.

ExecChangePeopleCombatModVS(People#, Versus PeopleGroupOwner#, CombatMod)

Sets the combat efficiency for the specified people, fighting against a people from the specified peoplegroup to Combatmod%. Setting CombatMod to 100% means normal results. More than 100% is a bonus and less is a penalty.

14.6 EVENTS: CHECKS

CheckTurn()

Returns the turn number. Equal to the regime number currently playing its turn.

CheckHexOwner(x , y)

Returns the number of the regime owning specified hex.

CheckRound()

Returns the round number.

CheckRegimeMorale(regime)

Returns the baseMorale value of the regime specified.

CheckWinner ()

Returns the regime number that is the winner. -1 is returned if nobody has won yet.

CheckWar (regime1, regime2)

Returns 1 if war between specified regime, and returns 0 if they are at peace.

CheckPeace (regime1, regime2)

Returns 0 if war between specified regime, and returns 1 if they are at peace.

CheckUnitsFrom(Areaslot, AreaCode, RegNr, NotPeopleNr)

Returns the powerpoints of all units in hexes with areacode value specified in areaslot(0-9) specified from regime number specified, that are not composed of notpeoplenr specified.

Specify notpeoplenr=-1 if you want to count absolute power point value of all units.

CheckOtherPeopleProductionPower(regime)

Counts all the productions points owned by this regime that cannot be used because the people in those locations wont produce for the specified regime.

CheckRandomPercent()

Returns a value between 1 and 100.

CheckLandscapeType (x, y)

Returns the number of the landscapetype of the specified hex.

CheckLandscapeSprite (x, y)

Returns the sprite of the landscapetype of the specified hex.

CheckSlot (x, y , areaslot)

Returns the value of the area slot specified of the specified hex.

CheckMapWidth ()

Returns the width of the map in hexes. counting start from 0.. so width = 10 is actually 11 hexes per row.

CheckMapHeight ()

Returns the height of the map in hexes. counting start from 0.. so width = 3 is actually 4 hexes per column.

CheckYear()

If you are using real dating for the round.. returns year number.

CheckMonth()

If you are using real dating for the round.. returns month number.

CheckDay()

If you are using real dating for the round.. returns day number.

CheckIfAI (regime)

If regime specified is played by AI then value 1 is returned, otherwise value 0.

CheckPoliticalPoints (regime)

Returns the amount of political points of the specified regime.

CheckVP (regime)

Returns the amount of victory points that the specified regime currently holds.

CheckTimeDiff (year, month, day)

Subtracts this date from the current game date. And returns the result in days. That means if you enter a day in the future of the current game date you will get a negative amount of days, while if you enter a date in the past of the current game date you'll get a positive amount.

For example: GameTime=5sept2005.. check(2 sept 2005) => 3 days

For example: GameTime=15sept2005.. check(22 sept 2005) => -7 days

CheckSupplyNeeded (regime)

Returns the amount of supply points all the units of the regime together that are not out on the open seas will need. This is usefull if you want to use events to give supply instead of using locations.

CheckHQFor (x, y)

Returns a 1 if a HQ is within supply range of this x,y and is of the same regime as the owner of this hex. A 0 is returned otherwise.

CheckSpecificPPLProd(regime , ppl)

Returns the amount of production points of locations that regime holds with that people occupying. setting ppl=-1 counts all peoplytypes.

CheckLocType(regnr , loctype, worth)

Returns [worth * number of found location type] for this regime number. However the worth per location type is modified for any structural damage it has.

CheckActionCard(regnr , card nr)

Returns 0 if regime nr does not have action card nr. Returns 1 if it has

CheckDipBlock (regnr)

Returnss 0 if regime is not dipblocked. Returns 1 if it is.

CheckSleep (regnr)

Returns 0 if regime is not a sleep. Returns 1 if its is.

CheckHistoricActionCard (regnr , card nr)

Returns 0 if regime nr does not have action card nr. Returns 1 if it has.

CheckSFTYPEInArea (areasslot, areacode, sftype, regime)

Counts the number of sftype individuals of specified regime in specified areacodes of specified areasslot. Can be used for example if the sftype: "Adolf Hitler" is still alive, or to check the number of specific troops.

CheckPowerPointsInArea(areasslot, areacode, regime)

Counts the amount of power points in specified hexes. Can be used for example to test border tension and build up of troops.

CheckSFTYPEInXY (x, y, sftype #, regime #)

Returns the quantity of the sftype present in that hex.

CheckRegimeKills(regime, sftype, round, reporttype)

Gives the amount of kills specified regime has made on specified sftype.

Specify sftype = -1 for all sftypes

Specify round = -1 for whole game

Specify reporttype=0 for qty and reporttype=1 for qty * power point worth.

CheckRegimeProduction(regime, sftype, round, reporttype)

Gives the amount of times this sftype has been produced by specified regime .

Specify sftype = -1 for all sftypes

Specify round = -1 for whole game

Specify reporttype=0 for qty and reporttype=1 for qty * power point worth.

14.7 THE RULEVARS

By changing the rulevars you can change the core rules of the game and set a lot of other stuff like some basic AI behaviour and even disabling some orders to simplify some games. It is for example possible to create scenario's without staff and no necessity for tactical HQ. It is possible to crash the game by experimenting with strange settings.

14.8 ON THE AI

The AI is quite capable in playing a scenario that sticks reasonably close to the generic.ptmaster file. But it has its limitations. Here is a list of things the AI will not perform:

- Make use of aircraft carriers
- Strategically transfer units
- Use Action Cards (workaround: write events for AI)
- Build fortifications or ports (workaround: use events for AI to build fixed lines)

- Repair towns (it does so automatically)
- The AI can blow bridges without engineers (can be switched off in editor)
- it does not get staff experience reduction due to changing its chain of command.
- The AI gets free transfers (though you can switch this advantage off with a rulevar)

Furthermore as a general rule you should remember if you are diverging a lot from the generic masterfile you should check and play the AI yourself before sharing your scenario with other players.

I say this so that if you make scenario's you work around these limitations, or you block the player of playing against the AI.

All in all you have an excellent fully flexible engine for designing human to human PBEM scenarios, and a reasonably flexible engine if you want the AI to cope. I am sorry to say that flexibility and AI don't go that well together.

14.9 DISTRIBUTING YOUR OWN CREATIONS TO OTHER PLAYERS

The best way to distribute your creation (when finished and well tested!) is to basically make a copy of the pt2 directory and delete everything except the parts your scenario needs. You then zip the insides of the pt2 directory. If somebody else then unpacks it inside his pt2 directory everything will automatically be in the right place.

If your creation is only using default graphics and sounds you'll just need to upload your scenario.pt2 file. In that case that would be all!

Example of such a zip file:

Scenarios/yourscenario.pt2

Graphics/yourscenariodir/specialunitgraphic.bmp

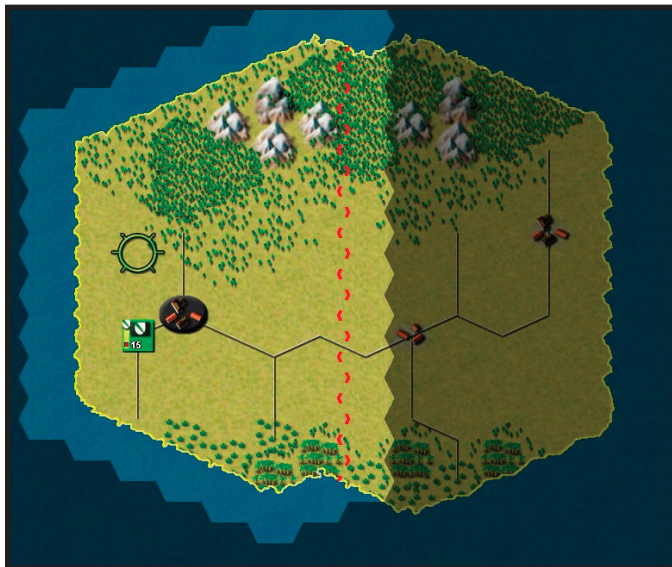
Graphics/yourscenariodir/specialunitgraphic2.bmp

Sound/yoursoundsdir/trumpet.wav

15.0 TUTORIAL

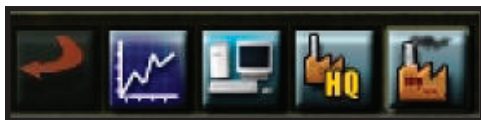
Welcome to the tutorial!

In this first tutorial we will take the enemy village just over the border. After starting the first tutorial this is what you should see:



The first town you have has a black background because you have not set it to a HQ yet. The green box just to its southwest is your HQ. The shaded area to the east is enemy-controlled territory.

The goal of this tutorial is taking the enemy village closest to our country. To do this we have to start producing some troops. Towns can produce troops. We have one town. Lets order it to produce troops! Select your town and then select the Production button (below, it is the factory icon at far right).



The production window then opens. Let's produce some supply and some infantry.



The slots at left should be filled by what you wish to produce. Click an item from the list at right to set it to produce; click the appropriate slot you wish to assign it to. Click the Select button to assign it. To the right of the slots is a row of boxes, which represent how much percentage of that town's production should be set to that item.

After you set the production of this town to 20% supply and 80% infantry you must not forget to also assign a HQ to this town. Select the town, and then click the HQ button that is to the left of the factory icon (see above).

After clicking the Set Location HQ button select your HQ unit to assign. After doing this, your town should be configured like this:



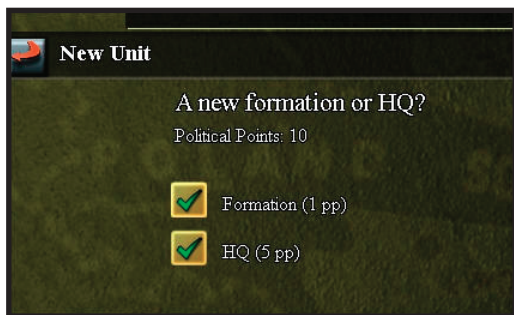
Click the end turn button.

If your new turn starts you'll notice some freshly produced troops have arrived in your HQ unit. We will now need to make a new unit next to the border. Select a hex next the border and press the new unit button as follows:



Select the hex the green circle is over, then click the Add Unit button.

Then you will get in a submenu:



Click the Formation check box.

After creating the unit, the game automatically asks you to assign a HQ for the unit:



Click on your HQ unit, then select the check mark button at the bottom to set it as your HQ.

After you created a new and empty unit we will have to get some troops into it. We do this by transferring troops from your HQ to this unit. To do this you'll have to select your HQ unit and then click the transfer button:

Click the Transfer button to transfer FROM the selected unit.

You'll then have to select the target for the transfer and actually do the transfer:



ADVANCED TACTICS

WORLD WAR II

Select the subformation type from the menu beneath the map, specify how many to move, and click the target unit for transfer from the HQ.

Transfer all your infantry from your HQ to the unit:



When you're satisfied, click the Do Transfer button.

We now have an infantry unit at the border with the enemy:



Everything is set. But the border unit has 0 Action Points. We have to end this turn. Please click the end turn button.

Next turn it will be ready for action. Let's select it and press the move button.



Select your unit, then click the Move button. You'll note your territory has expanded slightly, which is due to the unit's Zone of Control.

You have pressed the move button and now will see all the hexes you can move to are highlighted. By pressing one of these hexes your unit will move there. Please move to the enemy village:

Click the unit, then click on the enemy village.

Wooh!!! Surprise:



Surprise combat, to be precise. This occurs when you try to move your unit into a space that unspotted enemy unit already occupies. Note that in

the Casualties line, there are four icons; this means you've lost four troops. Your results may vary, however. Click the X in the upper right corner to exit this screen.

That was a nasty surprise. It happened because you did not have enough recon points to spot the defenders of the town.

But not to worry! We will now transfer the infantry that has been produced this turn from our HQ to reinforce our unit. You have mastered transfers earlier in this tutorial and you should be able to do this. You should end up with a reinforced unit like this:

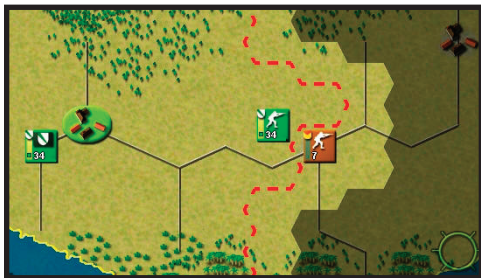


ADVANCED TACTICS

WORLD WAR II

Now press next turn button again.

In the new turn you'll see that your reinforced infantry unit is spotting the enemy village defenders from the start now:



Instead of being surprised ourselves we will now surprise the outnumbered defenders!

Please select the enemy hex so that the attack options show up and then press the attack button (with the two red arrows).

After clicking the land attack button you'll have to select your units that will participate in this attack:



Click your unit, and then the Join button (the green checkmark); the Attack button will light up. Click it.

Subformation Details

After pressing the attack button the attack will be resolved. Victory should be yours:



After exiting the combat screen you will see the enemy farm is now yours. You have completed this tutorial. The last thing we will now teach you is to exit this scenario.

After clicking on the preferences screen you can exit this scenario by pressing the red Quit button, which will take you back to the main menu.

16.0 SUBFORMATION TYPES DETAIL

16.1 RIFLE/SMG



Infantry is the backbone of any army. Infantry is cheap to produce and defends well; especially in rugged terrain. It is not that well in offense, but if you make sure you attack at higher then 2:1 odds you can use them in that role too.

Infantry's main weakness is its vulnerability to tanks. Attacking armoured cars and light tanks have an advantage versus infantry. Infantry attacking tanks is a different matter. Infantry can do a lot better defending against tanks with support.



When facing enemy tanks with infantry always try to add some AT-support to your infantry units. Infantry's second nemesis is artillery. It may not kill a lot of your infantry; it reduces infantry's Readiness a lot, making the infantry vulnerable for a follow up land attack.

The special thing about SMG infantry is that it fights better in confined environments: heavy forest, urban, and fortifications. However, it fights less well in open environments with long ranges of sight: plains, any mountains and swamps.

16.1.1 RIFLE/SMG UPGRADE COSTS

Level I (free)

SMG Infantry (20pp)

Level II (80pp)

Rifle II has 25% more Hit Points and is 25% better versus tanks compared to level I.

Level III (160pp)

Rifle III has 50% more Hit Points and is 50% better versus tanks compared to level I.

Level IV (320pp)

Rifle IV has 75% more Hit Points and is 75% better versus tanks compared to level I.

16.1.2 RIFLE/SMG COMBAT PREDICTIONS

20 Infantry Attacking Versus	Predicted Result
20 Infantry	6 friendly infantry lost, 2 enemy infantry lost
10 Infantry + 5 Machineguns	8 friendly infantry lost, 1 enemy lost
1 Light Tank	5 friendly infantry lost, 25% chance on killing enemy tank

16.1.3 RIFLE/SMG IMPORTANT STATS

Rear Area	False
Move Type	Foot
Weight	1
Carry	0
Production Cost	100
Class	Infantry
Stack	1

16.2 TRUCKS



Trucks are useful to motorized infantry or artillery. One truck can carry 20 infantry or two artillery guns (including infantry guns and antitank-guns).

Also trucks provide 2000 LANDCAP points. This is very useful to have at your HQs since it will provide you with the option to transfer reinforcements to the frontlines or even strategically transfer whole units.

Trucks should be kept out of battle as much as possible. If in battle, they try to stay out of the fight.

Trucks are vulnerable to bombers.

16.2.1 TRUCK UPGRADE COSTS

Level I (free)

16.2.2 TRUCK COMBAT PREDICTIONS

1 Truck is Attacked By	Predicted Result
1 divebomber	35% chance to lose 1 truck

16.2.3 TRUCK IMPORTANT STATS

Rear Area	True
Move Type	Wheel
Weight	10
Carry	20
Production Cost	1000
Class	Soft Mobile
Stack	1

16.3 FIGHTERS



Fighters are needed to get or maintain air superiority. They are not much good as strategic bombers or ground attack aircraft; however, they'll eat bombers and transporters alive.

They can also be used very well as aerial reconnaissance, since they have an excellent recon value.

16.3.1 FIGHTER UPGRADE COSTS

Level I (40pp)

Level II (80pp)

Fighter II has +25% hp, 9 Action Points per hex, +25% recon compared to level I.

Level III (160pp)

Fighter III has +25% hp, 8 Action Points per hex, +50% recon and +25% damage compared to level I.

Level IV (320pp)

Fighter IV has +50% hp, 7 Action Points cost per hex, +50% recon and +25% damage compared to level I.

16.3.2 FIGHTER IMPORTANT STATS

Rear Area	False
Move Type	Air, 10 Action Points per hex
Weight	20
Carry	0
Production Cost	2000
Class	Fighter
Stack	0

16.4 DESTROYERS



A cheap ocean-going combat vessel. It excels at spotting and killing submarines and providing just a little protection for your cargo ships.

It has no naval artillery power or anti-air power. Also it will be outgunned by heavier warships like the cruiser and the battleship.

16.4.1 DESTROYER UPGRADE COSTS

Level I (40pp)

Level II (80pp)

Destroyer II has +25% Hit Points, +25% recon, and 16 Action Points per hex speed compared to level I.

Level III (160pp)

Destroyer III has +50% Hit Points, +50% recon, and 12 Action Points per hex speed compared to level I.

Level IV (320pp)

Destroyer IV has +75% Hit Points, +75% recon, and 10 Action Points per hex speed compared to level I.

16.4.2 DESTROYER COMBAT VALUE PREDICTIONS

1 Destroyer Attacking Versus	Predicted Result
1 Submarine	35% submarine killed, 10% destroyer killed
1 Cruiser	15% cruiser killed, 40% destroyer killed
1 Battleship	6% battleship killed, 60% destroyer killed

16.4.3 DESTROYER IMPORTANT STATS

Rear Area	False
Move Type	Ship, 20 Action Points per hex
Weight	n/a
Carry	0
Production Cost	2000
Class	Surface Vessel
Stack	0

16.5 LIGHT TANKS



The Light Tank is a good all-around land unit. It is just as good versus infantry as the armoured car; however, it will make mincemeat of any equal or lighter panzers it attacks.

The role of the light tank is to break enemy infantry formations. Do not use it against heavier armor types, except possibly for medium tanks, but then only when attacking.

As all armor, the light tank is vulnerable against dive bomber attacks and defensively well placed anti-tank weaponry.

Armor attacks with a small penalty in light forest and urban terrain, and with heavy penalties in heavy forest, swamp, low mountain, and fortification terrain. In defense, it doesn't suffer terrain penalties.

16.5.1 LIGHT TANK UPGRADE COSTS

Level I (40pp)

Level II (80pp)

+25% Hit Points, +25% more damage versus tanks compared to level I.

Level III (160pp)

+50% Hit Points, +25% more damage versus tanks, +20% speed compared to level I.

Level IV (320pp)

+75% Hit Points, +25% more damage versus tanks, +25% more damage versus infantry, +20% speed compared to level I.

16.5.2 LIGHT TANK COMBAT VALUE PREDICTIONS

1 Light Tank Attacking Versus	Predicted Result
1 other Light Tank	25% chance killing enemy, 25% chance getting killed.
20 infantry	6 infantry killed, 25% chance getting killed.
10 infantry and 5 bazooka's	3 enemy killed, 45% chanced getting killed
1 Medium Tank	30% getting killed, 20% killing medium tank
1 Heavy Tank	50% getting killed, 5% killing heavy tank

16.5.3 LIGHT TANK IMPORTANT STATS

Rear Area	False
Move Type	Tracked
Weight	25
Carry	5
Production Cost	2000
Class	Armor
Stack	10

16.6 ARTILLERY



Artillery may be expensive, but if you use artillery wisely it can damage the enemy every turn while not suffering any damage itself by keeping it behind the lines. It is not that usefull against artillery, trucks, or armor. It is vulnerable against bombers.

Keep artillery out of land battles; it is very weak against direct assault.

16.6.1 ARTILLERY UPGRADE COSTS

Level I (40pp)

Level II (80pp)

+33% damage compared to level I.

Level III (160pp)

+66% damage compared to level I.

Level IV (320pp)

+100% dammage compared to level I.

16.6.2 ARTILLERY COMBAT VALUE PREDICTIONS

1 Artillery Attacking Versus	Result
20 Infantry	Kills 1 infantry, lowers Readiness of enemy with 40%
1 Light Tank	1% chance to kill light tank, reduces Readiness of enemy with 8%

16.6.3 ARTILLERY IMPORTANT STATS

Rear Area	True
Move Type	Artillery
Weight	10
Carry	0
Production Cost	2000
Class	Artillery
Stack	10

16.7 AIRCRAFT CARRIERS



The Aircraft Carrier can carry up to 5 aircraft. It can be useful if you want get some recon power with a fleet out on the high seas or get air support with a distant invasion.

The Aircraft Carrier is a very specialized subformation type, making it very expensive.

16.7.1 AIRCRAFT CARRIER UPGRADE COSTS

Level I (80pp)

Level II (160pp)

+25% more Hit Points, +40% space compared to level I.

Level III (320pp)

+50% more Hit Points, +60% space, +25% more AA compared to level I.

Level IV (640pp)

+75% more Hit Points, +100% space, +25% more AA compared to level I.

16.7.2 AIRCRAFT CARRIER IMPORTANT STATS

Rear Area	False
Move Type	Ship, 20 Action Points per hex
Weight	n/a
Carry	100 (air only)
Production Cost	8000
Class	Surface Vessel
Stack	0

16.8 ENGINEERS



Engineers are a bit more expensive than normal infantry. They perform the same as light infantry, but can collect Engineer Points which can be used for building roads and special locations like airfields, fortifications, and ports. Also, engineers are the only subformation type that can blow up bridges and locations. They are a big plus on most maps and provide flexibility.

Building a road costs 20 EP.

Building a bridge costs 50 EP over a stream and 100EP over a river.

Building into a hex with heavy forest, swamp or low mountains doubles the cost.

It is impossible to build a road or a bridge into a high mountain hex.

16.8.1 ENGINEER UPGRADE COSTS

Level I (free)

16.8.2 ENGINEER IMPORTANT STATS

Rear Area	True
Move Type	Foot
Weight	1
Carry	0
Production Cost	200
Class	Infantry
Stack	1

16.9 INFANTRY GUNS



The Infantry Gun is meant as a support weapon for infantry. It has some anti-tank value in offense and defense, but if you need it in that role, you're probably hurting.

It should stay behind the lines, since it is very vulnerable to direct assaults. However, as long as you fight at good odds and with a lot of infantry to protect it, you will find it a good investment scoring constant kills without getting damaged much itself.

As with all heavy equipment, it is also vulnerable against bomber strikes.

16.9.1 INFANTRY GUN UPGRADE COSTS

Level I (20pp)

Level II (40pp)

Inf Gun II does +33% damage compared to level I.

Level III (80pp)

Inf Gun II does +66% damage compared to level I.

Level IV (160pp)

Inf Gun II does +100% damage compared to level I.

16.9.2 INFANTRY GUNS COMBAT VALUE PREDICTIONS

20 Infantry + 1 Infantry Gun Attacking Versus	Predicted Result
20 Infantry	Defender loses 5 infantry, Attacker loses 8 infantry

16.9.3 INFANTRY GUNS IMPORTANT STATS

Rear Area	True
Move Type	Artillery
Weight	10
Carry	0
Production Cost	1000
Class	Artillery
Stack	5

16.10 ANTI-TANK GUNS



The ultimate anti-tank weapon, considering its low production cost. However, it is an almost purely defensive weapon. It is vulnerable against direct attack if your lines are breached in combat. Keep infantry with these guns to protect them. It is also vulnerable against bomber strikes.

16.10.1 ANTI-TANK GUN UPGRADE COSTS

Level I (40pp)

Level II (80pp)

AT-Gun II does +33% damage compared to level I.

Level III (160pp)

AT-Gun II does +66% damage compared to level I.

Level IV (320pp)

AT-Gun II does +100% damage compared to level I.

16.10.2 ANTI-TANK GUN COMBAT VALUE PREDICTIONS

10 Infantry + 1 Anti-Tank Gun Attacked By	Predicted Result
1 light tank	3 infantry killed, 10% to lose AT gun, 40% that light tank is killed

16.10.3 ANTI-TANK GUN IMPORTANT STATS

Rear Area	True
Move Type	Artillery
Weight	10
Carry	0
Production Cost	1000
Class	Artillery
Stack	5

16.11 MEDIUM TANKS



The medium battle tank is just as good versus infantry as the light tank, and can take twice as many hits. It fights well against light tanks. This tank is an excellent choice if the enemy has lots of light tanks chewing up your infantry. As with all tanks, it is vulnerable to dive bomber strikes.

Armor attacks with small penalties in light forest and urban terrain, and with heavy penalties in heavy forest, swamp, low mountain, and fortification terrain.

The Light Tank is a prerequisite when researching the Medium Tank.

16.11.1 MEDIUM TANK UPGRADE COSTS

Level I (40pp)

Level II (80pp)

+25% hp, +25% versus infantry compared to level I.

Level III (160pp)

+50% hp, +25% versus infantry, +25% vs tanks compared to level I.

Level IV (320pp)

+75% hp, +50% versus infantry, +25% vs tanks compared to level I.

16.11.2 MEDIUM TANK COMBAT VALUE PREDICTIONS:

1 Medium Tank Attacking Versus	Predicted Result
1 Light Tank	15% to get self killed, 42% to kill light tank
1 Heavy Tank	35% to get self killed, 15% to kill heavy tank
20 Infantry	8 infantry killed, 15% to get self killed.
10 Infantry + 5 bazooka's	5 infantry killed, 35% to get self killed.

16.11.3 MEDIUM TANK IMPORTANT STATS

Rear Area	False
Move Type	Tracked
Weight	35
Carry	5
Production Cost	3000
Class	Armor
Stack	10

16.12 CARGO SHIPS



Cargo ships carry your troops. It is very vulnerable against bomber strikes and armed naval vessels and submarines. If the enemy has a navy, you better protect your cargo ships!

Also, cargo ships produce 5000 SEACAP which is very handy to have at HQs that are located at ports. This allows them to transfer reinforcements overseas or even strategically transfer whole units overseas.

16.12.1 CARGO SHIPS UPGRADE COST

Level I (free)

16.12.2 CARGO SHIPS COMBAT VALUE PREDICTIONS

Getting Attacked By	Predicted Result
Submarine	55% chance to get killed
Divebomber	50% chance to get killed
Cruiser	68% chance to get killed

16.12.3 CARGO SHIPS IMPORTANT STATS

Rear Area	True
Move Type	Ship, 20ap per hex
Weight	n/a
Carry	50
Production Cost	2000
Class	Artillery
Stack	0

16.13 SUBMARINES



The weakest naval subformation after the cargo ship. It performs reasonably well only on the attack, but can luckily manage to evade getting killed in most naval engagements if attacked itself, due to its ability to submerge and escape destruction.

It has a high hide value and will not quickly be spotted by enemy navies. Due to land unit recon points you might avoid trying to hide next to enemy coastlines.

Use these submarines either for reconnaissance if you have a weak navy or to sneak up and attack enemy transports or capitol ships.

Submarines are vulnerable to destroyers and dive bombers.

16.13.1 SUBMARINE UPGRADE COSTS

Level I (40pp)

Level II (80pp)

+50% hide, +10% evade kill, +25% Hit Points compared to level I.

Level III (160pp)

+100% hide, +20% evade kill, +50% Hit Points compared to level I.

Level IV (320pp)

+150% hide, +30% evade kill, +50% Hit Points, +20% speed compared to level I.

16.13.2 SUBMARINE COMBAT VALUE PREDICTIONS

1 Submarine Attacking Versus	Result
1 Cargo Ship	55% to kill Cargo Ship
1 Destroyer	10% to kill Destroyer, 50% chance to get killed
1 Cruiser	15% to kill Cruiser, 30% to kill self
1 Battleship	10% to kill Battleship, 40% to kill self
1 Carrier	10% to kill, 30% to kill self

16.13.3 SUBMARINE IMPORTANT STATS

Rear Area	False
Move Type	Ship, 20ap per hex
Weight	n/a
Carry	0
Production Cost	2000
Class	Submarine
Stack	0

16.14 LEVEL BOMBERS



The bomber is a powerful aircraft. It can do strategic bombing and reduce enemy fortifications, airfields, and ports to rubble, or destroy the production capacity of enemy towns and cities.

Next to that it performs very well against enemy heavy equipment like tanks, guns, and trucks. It is not much use against infantry (you should deploy artillery for that).

The main weakness of the bomber is its vulnerability to fighters. Sending your bombers into enemy airspace without a fighter escort will prove disastrous if they're intercepted.

Also note that if bombers are intercepted, they will not conduct strategic bombardments very well, unless you have sent enough fighters to keep the interceptors busy.

16.14.1 LEVEL BOMBER UPGRADE COSTS

Level I (40pp)

Level II (80pp)

+50% structural damage, +25% hp, 9 Action Points per hex compared to level I.

Level III (160pp)

+75% structural damage, +50% hp, 7 Action Points per hex compared to level I.

Level IV (320pp)

+100% structural damage, +75% hp, 6 Action Points per hex compared to level I.

16.14.2 LEVEL BOMBER COMBAT VALUE PREDICTIONS

1 Level Bomber Attacking Versus	Predicted Result
A location	150 points of structural damage
A location with 1 fighter intercepting	50% chance to get self killed, only 25 points of structural damage
A location with 1 flak guarding it.	25% chance to get self killed, 50 points of structural damage

1 Level Bomber +1 Fighter Attacking Versus	Predicted Result
A location with 1 fighter intercepting	20% chance to kill enemy fighter, 33% chance to lose own fighter, 20% to lose own bomber, 120 points of structural damage

16.14.3 LEVEL BOMBER IMPORTANT STATS

Rear Area	True
Move Type	Air, 10ap per hex
Weight	20
Carry	0
Production Cost	2000
Class	Non-fighter
Stack	0

16.15 TRANSPORT AIRCRAFT



The Transport Aircraft has 3 functions. First, it can transport land units to other airfields. Second, it can drop paratroopers on any hex (including enem-held hexes). Third, it can drop supplies to encircled units.

The Transport Aircraft is just like bombers, in that they are extremely vulnerable to fighters.

16.15.1 TRANSPORT AIRCRAFT UPGRADE COSTS

Level I (20pp)

16.15.2 TRANSPORT AIRCRAFT IMPORTANT STATS

Rear Area	True
Move Type	Air, 10ap per hex
Weight	20
Carry	20
Production Cost	2000
Class	Non-Fighter
Stack	0

16.16 HORSES



The horse is an archaic but effective form of transport. With one horse (team), you can transport 1 artillery piece. This is cheaper than using trucks; though admittedly not nearly as fast. However, horses can move faster in heavy forest and mountains without roads.

The horse is in contrast to trucks not as vulnerable to bomber strikes, but it is vulnerable to artillery, just like infantry is.

Horses also provide 200 LANDCAP if put in HQs, which can be used to transfer reinforcements or strategically transferring units.

16.16.1 HORSES UPGRADE COST

Level I (free)

16.16.2 HORSES IMPORTANT STATS

Rear Area	True
Move Type	Horse
Weight	1
Carry	10
Production Cost	200
Class	Infantry
Stack	1

16.17 PARATROOPERS



Just like rifle infantry, with the added skill that they are equipped and trained to be paraded from transporter aircraft.

Also they can keep a bit more supplies with them, enabling them to hold out a bit longer than normal infantry if cut off from supply.

16.17.1 PARATROOPERS UPGRADE COSTS

Level I (40pp)

16.17.2 PARATROOPERS IMPORTANT STATS

Rear Area	False
Move Type	Foot
Weight	1
Carry	0
Production Cost	200
Class	Infantry
Stack	1

16.18 FLAK



Flak is a good way to provide some defense against enemy bombers if you do not have fighters that are up to the task. Flak has a range of 1, meaning that it will defend not only its own hex, but also those surrounding it.

Flak is cheap and has good odds against aircraft. However, if it becomes a target itself, things could get nasty.

If well-entrenched and placed in towns or near bridges, it is very good in lowering the amount of damage bombers do to the town or the bridge, while direct airstrikes would be hard pressed to damage it.

Motorized or towed Flak can also be smart to attach to armored spearheads or artillery formations.

16.18.1 FLAK UPGRADE COSTS

Level I (40pp)

Level II (80pp)

+33% damage vs air compared to level I.

Level III (160pp)

+66% damage vs air + range increased to 2 compared to level I.

Level IV (320pp)

+66% damage vs air + range increased to 3 compared to level I.

16.18.2 FLAK COMBAT VALUE PREDICTIONS

1 Flak Attacking Versus	Predicted Result
1 Fighter	10% chance that flak is killed, 40% that fighter is killed
1 Dive Bomber	30% that flak is killed, 20% that divebomber is killed
1 Level Bomber	25% chance that flak is killed, 25% that divebomber is killed

16.18.3 FLAK IMPORTANT STATS

Rear Area	True
Move Type	Artillery
Weight	10
Carry	0
Production Cost	1000
Class	Artillery
Stack	2

16.19 HEAVY TANKS



The heavy tank is a monster. Considering its cost, it is not a good purchase to use solely to attack infantry. It does just as much damage as a light tank to them (however, it has four times the amount of Hit Points as the light tank)

The heavy tank is intended to dominate the land battlefield. Its main purpose is to destroy other tanks; every tank lighter than it will be turned into scrap by the heavy tank. It is, however, vulnerable to bomber attacks.

Armor attacks with light penalties in light forest and urban, with heavy penalties in heavy forest, swamp, low mountains and fortifications.

The Medium Tank is a prerequisite when researching the Heavy Tank.

16.19.1 HEAVY TANK UPGRADE COSTS

Level I (80pp)

Not standard available with level 1 tech games

Level II (160pp)

Inf Gun II does +33% damage compared to level I.

Level III (320pp)

Inf Gun II does +66% damage compared to level I.

Level IV (640pp)

Inf Gun II does +100% damage compared to level I.

16.19.2 HEAVY TANK COMBAT VALUE PREDICTIONS

1 Heavy Tank Attacking Versus	Predicted Result
1 light tank	8% that heavy tank is killed, 53% that light tank is killed
1 medium tank	17% that heavy tank is killed, 40% that medium tank is killed
20 Infantry	Kills 8 infantry, 15% that heavy tank is killed
10 Infantry + 5 bazooka	Kills 6 infantry, 23% that heavy tank is killed.

16.19.3 HEAVY TANK IMPORTANT STATS

Rear Area	False
Move Type	Tracked
Weight	50
Carry	5
Production Cost	6000
Class	Armor
Stack	10

16.20 MACHINEGUNS



The Machinegun adds defensive capabilities to your units, although only versus infantry. Don't use machineguns alone; use them as support weapons for your infantry or armored formations.

16.20.1 MACHINEGUN UPGRADE COSTS

Level I (20pp)

Level II (40pp)

+33% damage, +25% hp compared to level I.

Level III (80pp)

+66% damage, +50% hp compared to level I.

Level IV (160pp)

+100% damage, +50% hp compared to level I.

16.20.2 MACHINEGUN IMPORTANT STATS

Rear Area	False
Move Type	Foot
Weight	1
Carry	0
Production Cost	250
Class	Infantry
Stack	1

16.21 SCOUTS



The Scout is a specialized unit. It is the same as light infantry, but it moves faster and has an excellent reconnaissance ability. The scout is especially adept at avoiding detection, especially if it is in a heavy type of terrain, such as heavy forest.

16.21.1 SCOUT UPGRADE COSTS

Level I (40pp)

Level II (80pp)

+20% movement, +25% hp, +50% supply carry compared to level I.

Level III 160)

+20% movement, +50% hp, +100% supply carry, + anti supply compared to level I.

Level IV (320pp)

+20% movement, +75% hp, +150% supply carry, + anti supply compared to level I.

16.21.2 SCOUT IMPORTANT STATS

Rear Area	False
Move Type	Foot
Weight	1
Carry	0
Production Cost	200
Class	Infantry
Stack	1

16.22 MORTARS



The mortar is considered standard infantry support unit, able to pack a punch against enemy infantry units. The main difference between mortars and artillery is that mortars are a bit cheaper and less effective, but mortars are able to move on its own as infantry. Also, it is not as vulnerable to bombers (although they are vulnerable to artillery).

Since it acts like infantry, mortars are able to move into the most rugged of terrains such as heavy forest and heavy mountains.

16.22.1 MORTAR UPGRADE COSTS

Level I (20pp)

Level II (40pp)

+33% more damage compared to level I.

Level III (80pp)

+66% more damage compared to level I.

Level IV (160pp)

+100% more damage compared to level I.

16.22.2 MORTAR COMBAT VALUE PREDICTIONS

10 Infantry +2 Mortars Attacking Versus	Predicted Result
20 Infantry	6 enemy infantry killed, 8 friendly infantry killed
1 Light Tank	3 infantry lost, 50% chance to kill light tank

16.22.3 MORTAR IMPORTANT STATS

Rear Area	True
Move Type	Foot
Weight	1
Carry	0
Production Cost	500
Class	Infantry
Stack	1

16.23 BAZOOKAS



The bazooka is standard infantry support against armor. Don't use only bazookas in units; mix them with infantry since tanks won't be able to distinguish them.

The bazooka is a good defensive weapon, but it can also be used to great effect to support infantry attacks on enemy armor.

16.23.1 BAZOOKA UPGRADE COSTS

Level I (40pp)

Level II (80pp)

+25% hp, +25% vs tanks compared to level I.

Level III (160pp)

+50% hp, +50% vs tanks compared to level I.

Level IV (320pp)

Subformation Details

+75% hp, +75% vs tanks compared to level I.

16.23.2 BAZOOKA COMBAT VALUE PREDICTIONS

10 Infantry and 5 Bazookas Attacking Versus	Predicted Result
1 Light Tank	2 infantry killed, 50% to get 1 bazooka killed, 45% chance to kill light tank
1 Medium Tank	3 infantry killed, 1 bazooka killed, 30% chance to kill medium tank
1 Heavy Tank	3 infantry killed, 1 bazooka killed, 25% chance to kill heavy tank
20 Infantry	3 friendly infantry killed, 2 bazooka killed, only 1 enemy infantry killed.

16.23.3 BAZOOKA IMPORTANT STATS

Rear Area	False
Move Type	Foot
Weight	1
Carry	0
Production Cost	250
Class	Infantry
Stack	1

16.24 STAFF



Staff fights about half as good as Rifle infantry, but that is not their primary use. Staff is needed to man your HQs. With adequate staff in your HQs, your troops will fight a lot better. How much better depends on the experience of the staff, but staff gains XP with every battle that its subordinate units fight.

A worthy investment that quickly gives your troops overall bonuses between 25-125%.

Be mindful with changing your order of battle and/or transferring staff, since it will reduce their experience (reflecting bonding with the troops and organization).

16.24.1 STAFF UPGRADE COSTS

Level I (free)

Level II (240pp)

Staff II gives +25% combat bonus compared to level I.

Level III (720pp)

Staff III gives +50% combat bonus compared to level I.

Level IV (1000pp)

Staff III gives +75% combat bonus compared to level I.

16.24.2 STAFF IMPORTANT STATS

Rear Area	True
Move Type	Foot
Weight	1
Carry	0
Production Cost	100
Class	Infantry
Stack	1

16.25 TANK DESTROYERS



The Tank Destroyer is a specialized tank, made for only one purpose: destroying other tanks. It does this well in offense or in defense. It is the master of all other tanks, except the heavy tanks with which it is on almost even odds (although the tank destroyer is cheaper). The Tank Destroyer is vulnerable to infantry, as well as bomber strikes.

Armor attacks with light penalties in light forest and urban terrain, with heavy penalties in heavy forest, swamp, low mountain, and fortification terrain.

The Medium Tank is a prerequisite when researching the Tank Destroyer.

16.25.1 TANK DESTROYER UPGRADE COSTS

Level I (80pp)

Level II (160pp)

Tank Destroyer II has +25% Hit Points and +25% versus tanks compared to level I.

Level III (320pp)

Tank Destroyer III has +50% Hit Points and +50% versus tanks compared to level I.

Level IV (640pp)

Tank Destroyer IV has +75% Hit Points and +75% versus tanks compared to level I.

16.25.2 TANK DESTROYER COMBAT VALUE PREDICTIONS

1 Tank Destroyer Attacking Versus	Predicted Result
1 Medium Tank	43% chance to kill Medium Tank, 15% chance to get killed.
1 Heavy Tank	30% chance to kill Heavy Tank, 25% chance to get killed
10 Infantry + 5 Bazookas	4 Infantry killed, 30% chance to lose Tank Destroyer

16.25.3 TANK DESTROYER IMPORTANT STATS

Rear Area	False
Move Type	Tracked
Weight	50
Carry	5
Production Cost	4500
Class	Armor
Stack	10

16.26 ARMORED CARS



The Armored Car is essentially a tank on wheels, but doesn't really qualify as a tank at all. However, against infantry it is almost just as deadly as the light tank, but only half the cost to produce as the light tank.

The Armored Car attacks with light penalties in light forest and urban terrain, and with heavy penalties in heavy forest, swamp, low mountain, and fortification terrain.

Armored Cars also have a very good recon value of 10. By comparison, a light tank only has a recon value of 1.

16.26.1 ARMORED CAR UPGRADE COSTS

Level I (20pp)

16.26.2 ARMORED CAR COMBAT VALUE PREDICTIONS:

1 Armored Car Attacking Versus	Predicted Result
20 infantry	5 infantry killed, 33% to get killed
10 infantry + 5 bazookas	2 enemies killed, 50% to get killed
1 light tank	15% to kill light tank, 40% to get killed

16.26.3 ARMORED CAR IMPORTANT STATS

Rear Area	False
Move Type	Tracked
Weight	20
Carry	5
Production Cost	1000
Class	Armor
Stack	5

16.27 CRUISERS



A small capital ship with excellent anti-aircraft strength and some shore bombardment strength. It is a good weapon to defend fleets against air attacks, but is vulnerable to submarines.

16.27.1 CRUISER UPGRADE COSTS

Level I (40pp)

Level II (80pp)

Cruiser II has +25% hp, +25% damage compared to level I.

Level III (160pp)

Cruiser II has +50% hp, +50% damage compared to level I.

Level IV (320pp)

Cruiser II has +75% hp, +75% damage compared to level I.

16.27.2 CRUISER COMBAT VALUE PREDICTIONS

1 Cruiser Attacking Versus	Predicted Result
1 Destroyer	45% destroyer is killed, 15% cruiser is killed
1 Battleship	15% chance battleship is killed, 45% chance cruiser is killed
1 Aircraft Carrier	25% carrier is killed, 15% chance cruiser is killed

16.27.3 CRUISER IMPORTANT STATS

Rear Area	False
Move Type	Ship, 20ap per hex
Weight	n/a
Carry	0
Production Cost	4000
Class	Surface Vessel
Stack	0

16.28 BATTLESHIPS



The battleship is the master of the seas. It is expensive, but you get excellent shore bombardment fire and a lot of Hit Points for your bucks. It is vulnerable to air attack and submarine attacks.

16.28.1 BATTLESHIP UPGRADE COSTS

Level I (80pp)

Level II (160pp)

+25% hp, +25% damage compared to level I.

Level III (320pp)

+50% hp, +50% damage compared to level I.

Level IV (640pp)

+75% hp, +75% damage compared to level I.

16.28.2 BATTLESHIP COMBAT VALUE PREDICTIONS

1 Battleship Attacking Versus	Predicted Result
1 Destroyer	61% destroyer is killed, 6% battleship is killed
1 Cruiser	45% cruiser is killed, 15% battleship is killed
1 Submarine	5% battleship is killed, 40% submarine is killed

16.28.3 BATTLESHIP IMPORTANT STATS

Rear Area	False
Move Type	Ship, 20ap per hex
Weight	n/a
Carry	0
Production Cost	8000
Class	Surface Vessel
Stack	0

16.29 DIVE BOMBERS



The dive bomber is a specialized aircraft that excels at attacking enemy land units. It can do strategic bombing and reduce enemy fortifications, airfields, and ports to rubble, or destroy the production capacity of enemy towns and cities. But it does not do this half as well as the level bomber.

The dive bomber is designed to do very well against enemy heavy equipment like tanks, guns, and trucks. It is not that much use against infantry (you should deploy artillery for that). It will do well against submarines and capital ships, but not versus the cruiser.

However, the main weakness of the dive bomber is its vulnerability to fighters. Sending your dive bombers into enemy airspace without a fighter escort will prove disastrous if they're intercepted.

16.29.1 DIVE BOMBER COSTS

Level I (40pp)

Level II (120pp)

Dive Bomber II does 50% more damage compared to level I.

Level III (360pp)

Dive Bomber III does 100% more damage compared to level I.

Level IV (720pp)

Dive Bomber IV does 150% more damage compared to level I.

16.29.2 DIVE BOMBER COMBAT VALUE PREDICTIONS

1 Divebomber Attacking Versus	Predicted Result
20 Infantry	2 infantry killed
1 Light Tank	25% to kill light tank
1 Heavy Tank	15% to kill heavy tank
1 Cruiser	4% to kill cruiser, 66% to get killed
1 Battleship	7,5% to kill battleship, 45% to get killed
1 Destroyer	35% to kill destroyer, 15% to get killed

16.29.3 DIVE BOMBER IMPORTANT STATS

Rear Area	True
Move Type	Air, 10ap per hex
Weight	20
Carry	0
Production Cost	2000
Class	Non-Fighter
Stack	0

16.30 HALFTRACKS



Halftracks are useful to motorize infantry or artillery. 1 halftrack can carry 20 infantry or 2 artillery guns (including inf-gun and at-gun). Also, halftracks provide 1000 LANDCAP.

Halftracks are tracked instead of wheeled like trucks and can stand 4 times the amount of damage a truck can, making them more battle-worthy machines.

Halftracks are also excellent to be used as reconaissance vehicles since they provide all terrain mobility, protection and speed.

16.30.1 HALFTRACK COSTS

Level I (100)

16.30.2 HALFTRACK COMBAT VALUE PREDICTIONS

Attacked By	Predicted Result
1 Dive Bomber	15% chance to get killed

16.30.3 HALFTRACK IMPORTANT STATS

Rear Area	True
Move Type	Tracked
Weight	10
Carry	20
Production Cost	1250
Class	Soft Mobile
Stack	1

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