

Tutorial: Making new units from scratch by Tom Weber

One of my favorite aspects of the game is to create scenarios. One of the biggest challenges in making scenarios, especially if you are making scenarios outside the WWII era, is in designing the units. The following is a walk through on how to make a unit set from scratch.

Before you begin, you should plan the units. You need to understand how they move, fight, any particular special attributes they might have, and how much they cost. I am going to model units from *Starship Troopers*, partly to avoid any complaints about realism ;)

I counted 15 steps required to make a unit set. It is involved, but you have a high level of flexibility. Note that making a new unit set is much easier if you modify an existing one.

Step 1 - Make a clean slate.

- Set up a random game
- Go into the editor
- Go into the map and erase all units and set all territory to neutral
- Go into sftypes and erase units (unless you want to simply modify them)
- Go into research and erase the research tree
- Go into itemtypes and erase items (except supply and political points which we will still use)

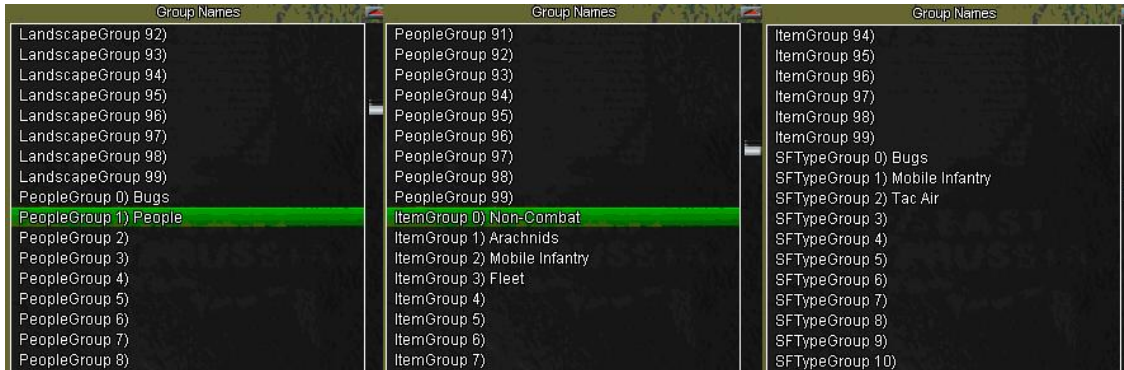


Step 2. Making labels.

We need to make labels for the different groups and types that we will use. To set the labels, go into editor - settings - group names. There are lots of different types of groups that have names:

- Pick movegroups names (theses are used to set how units move). I pick bugs, people, and Tac Air.
- Ignore Landscape group as we are not changing land

3. Set names for people groups. You can have all have the same type of people. Most of the WWII scenarios use the label universals. It is often nice to split to do things with production and combat modifiers. I choose 2 people names - bugs and people.
4. Set up item group names. Items are things that can be produced.
5. Set sftypegroups names. These are categories that will be used for combat modifiers.



Step 3 - Build a research tree.

I decided to let the bugs research beetles. In the movie, these were giant plasma shooting bugs. The people can research Tac Air. They are combination drop ships and dive bombers.

For each:

- Set the cost for the people group. I set research to 10. Note that setting the cost to -1 prevents a people from researching the technology. So, people cannot research beetles.
- Put in a description
- Link the research picture to the sftype picture (you will have to come back in do this since we have no defined the sftype yet)
- Set pre-reqs. This lets you build a tree (e.g., you need rifle 2 to build rifle 3)
- Set blocks. This prevents you from buying a lower level research (e.g., you cannot build rifle 2 once you research rifle 3)
- Set tech level. When defining a regime or setting up a random game, you can set a tech level (you can only choose level 1 in a random game).



Step 4. Setting the cost

Go to the item type screen. Here is where you set the cost of the different units. A unit cannot be produced if it does not have a cost:

- Set which people are allowed to build. I let people build mobile infantry and tac air. Bugs build the other units. Note that we will later go into the locType screen and set which location is allowed to build.
- Set the item group number. This is a category of builds. In WWII; rifle, smg, staff, engineers, etc... are all infantry.
- Set the cost. Bugs will fight poorly but bet 10x less costly than mobile infantry.
- Set research if applicable
- set Issstype. This deposits the right sftype in an HQ for each unit produced.



Step 5 - Make the sftype shells

This is a simple step. Go into the sftypes menu and add units (either blanks or copies). Making a copy is a good way to make a unit upgrade (e.g., make rifle 1, make a copy for rifle 2 and then make the appropriate minor adjustments)



Step 6 - Add graphics.

Find the pictures you would like to use. There are 2 pictures - the image and the symbol. The symbol is used on the counter and the combat screen. The image is used in the unit container, for the unit description, and for research.

Here is Mobile Infantry.

Note that the symbol weight is used to determine what the dominant symbol is for the counter. In WWII, tanks have a weight of 20, infantry have a weight of 1. The counter will be armored if, for example, you have 10 infantry and 1 tank.

Main River Settings Events
 Map Reg LocType ItemTypes
 Land SFtypes People's Bridge
 Road Units Hex Research
 ActCards

SFTypes Name: Mobile Infantry

0) Mobile Infantry

1) Tac Air

2) Bugs

3) Beetles

4) Hopper

Property Sheets

Graphics

Statistics 1

Statistics 2

Combat Detail Stats

Combat Landscape Mods

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AI Role Scores

Add SFtype Copy
 Add SFtype Type
 Remove this SFtype

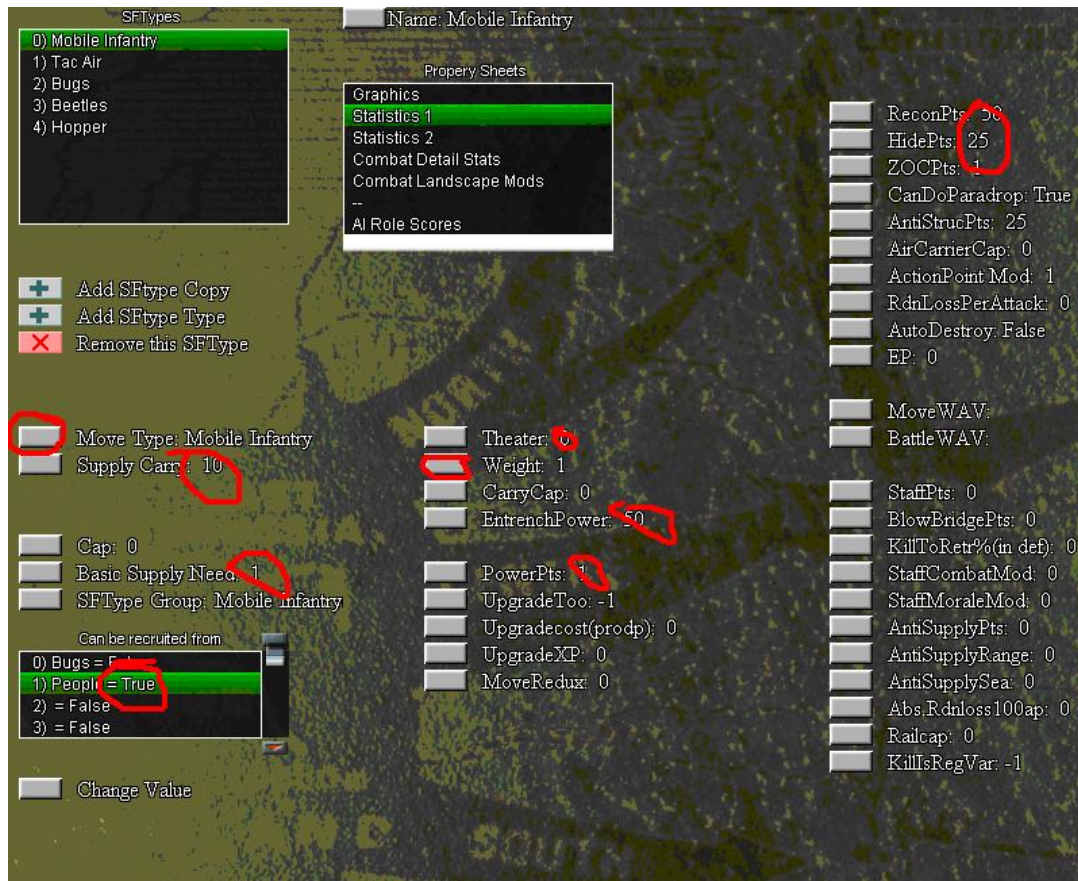
Symbol Group: -1
 Symbol Weight: 1
 OverRule Symbol: False

Step 7 - Statistics 1 property sheet.

Now we are getting into serious unit design.

See below:

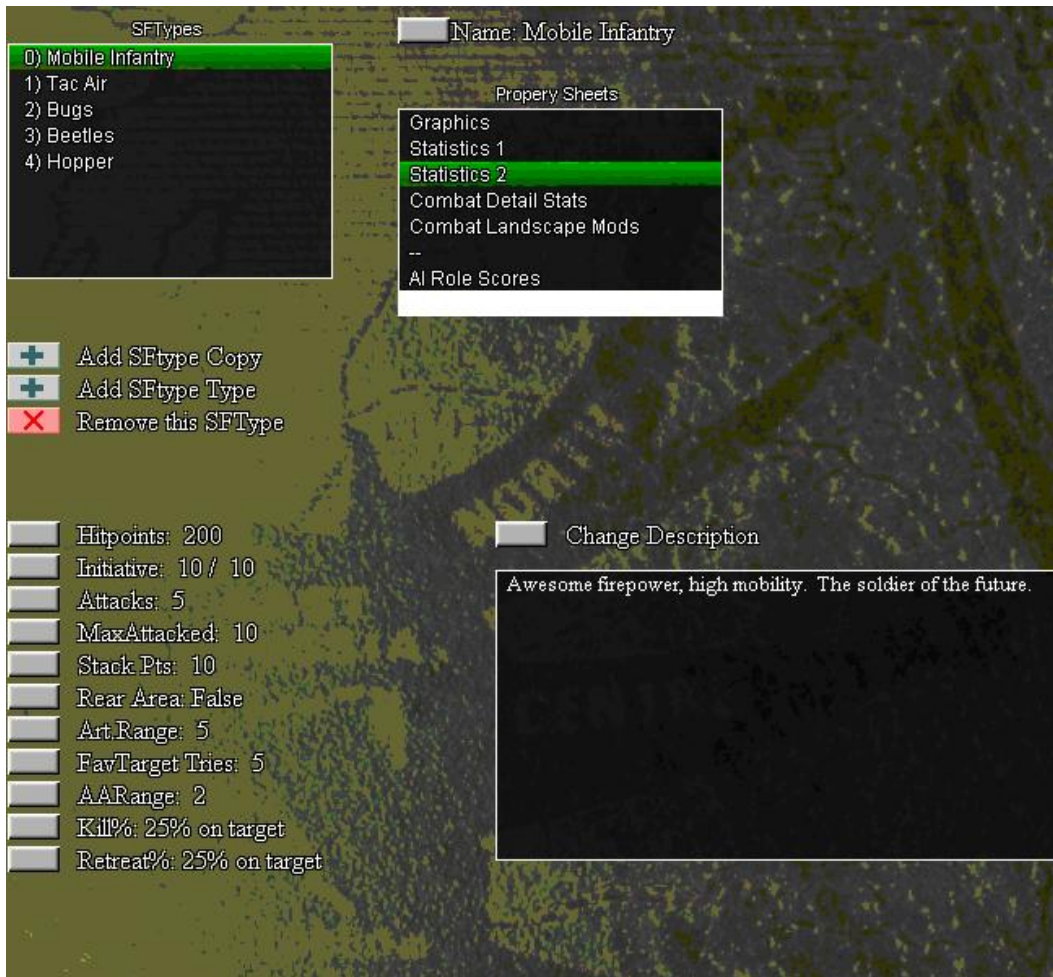
- Set move type. Mobile Infantry moves like infantry. We will define what this means in the land screen.
- It carries 10 supply and only consumes 1. So, MI can get cut off for a bit. In WWII, ships can carry 20x their supply consumption. Note that I will make bugs consume 0 supply so they cannot get off.
- Theater determines if the unit is land, air, or sea
- Weight and carry determine how many units can be carry at sea, by truck, or by air. MI weights 1, tac air carries 10 so 10 MI can be shipped.
- Power points is used to set the experience an enemy gets for a kill, also is the starting point for the number you see on the counter. You want power points is general to be align to the relative strength of the unit. I initially set MI power points at 1 but then upped it to 4.
- I will let MI parachute. I also went back and gave them engineering points. MI is a combination of infantry, para, and engineer.
- I also set the kills to retr to 50%



Step 8 - Statistic II property sheet

Here we continue:

- MI will have looks of hit points and go initiative.
- They will be able to do multiple attacks per round (which is good given the number of bugs they will face)
- They also have RPGs simulated as both artillery and AA capability

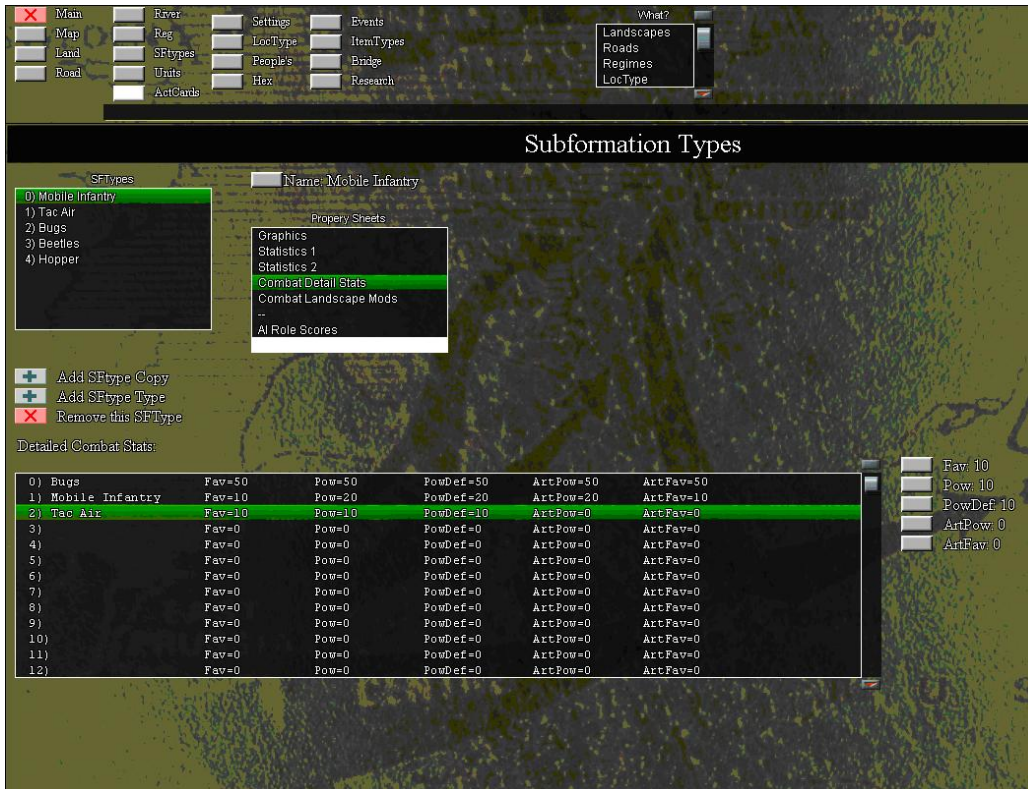


Step 9 - Combat stats

Here we set how the unit fights against other sftype groups (remember our labels above).

- Set favorites. This determines how likely the MI will attack a type if it has a choice.
- Set offensive and defense combat power and artillery power.

If you look at the bug combat sheet (not shown but in the scenario file), the MI has significantly more hit points and firepower against bugs than vice versa.



Step 10 - Set landscape combat modifiers

Here we adjust how the unit fights in different landscapes. You set an attack and a defense modifier. For simplicity, I keep all attack mods 1 and adjust the defense modifier to the terrain.

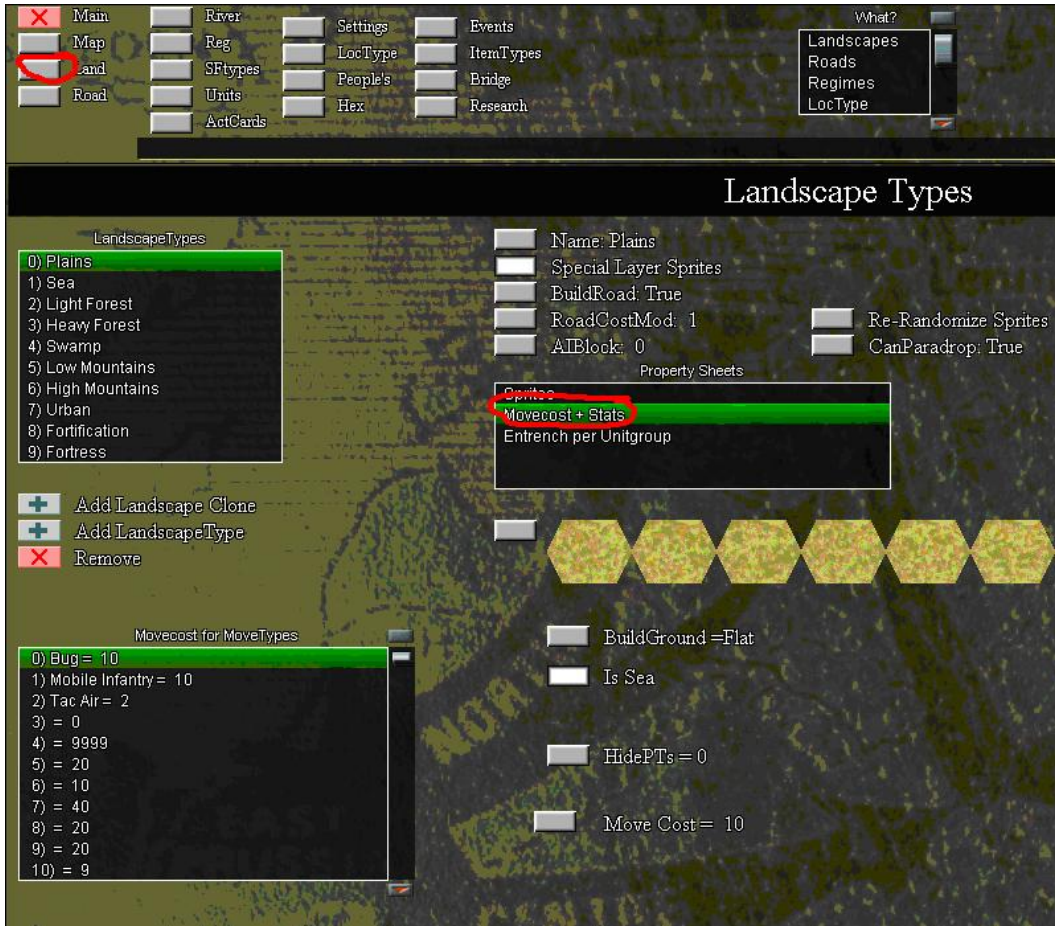


Step 11 - Modify movement

We are now done with the sftype tab. A few more steps and we are ready to play.

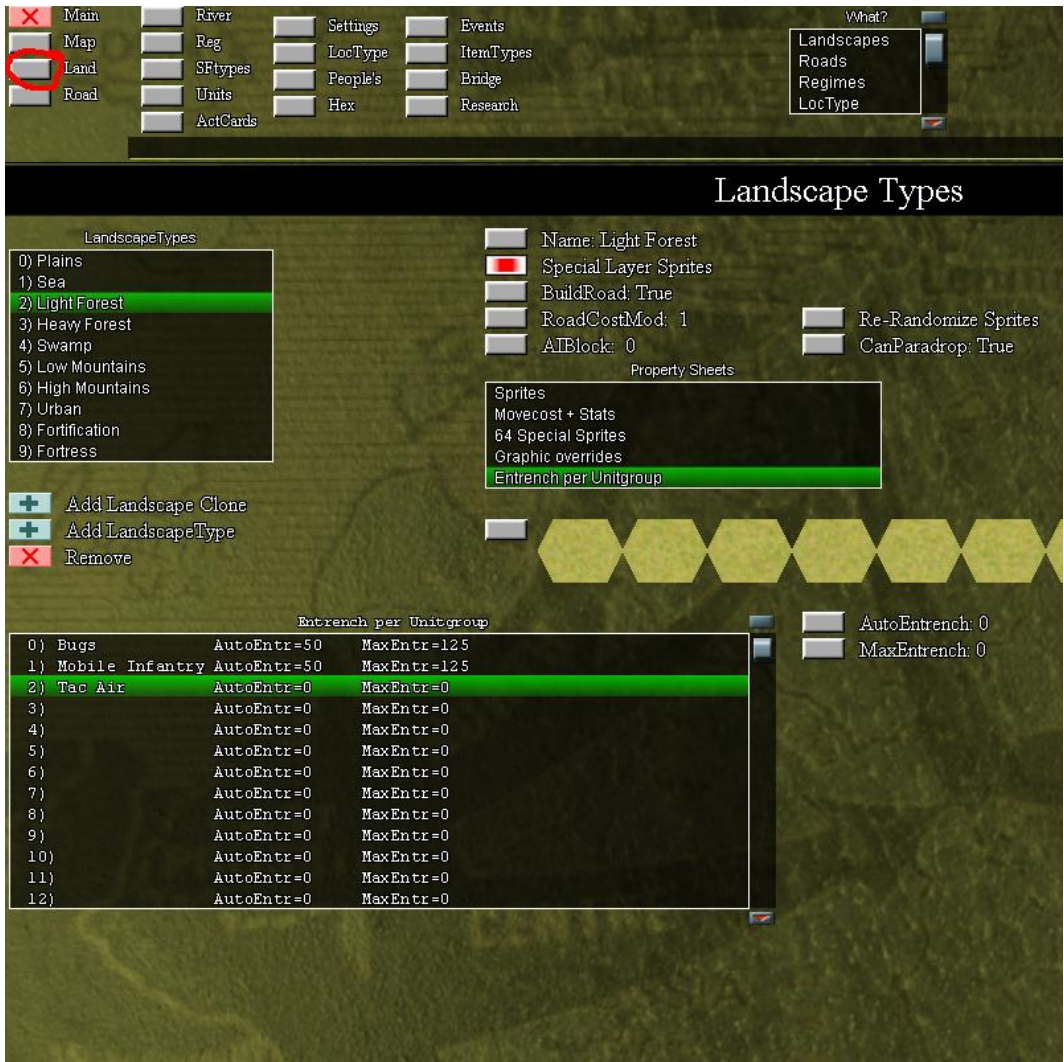
Next go to the land tab and into the movement sheet. Here we set how the movement type moves. In this simple unit set, we have 1 infantry movement type and 1 infantry sftype. In WWII, we have 1 foot movement type and it is used by rifle, smg, mg, mortar, staff, etc.. (plus upgrades).

The number is the cost (in ap) to enter the hex. Units at full readiness get 100 ap. I want mobile infantry to be mobile so I give them a movement of 10 in the plains so they can go 10 hexes. Tac air has a range of 50 since it's movement cost is 2.



Step 12 - Entrenchment

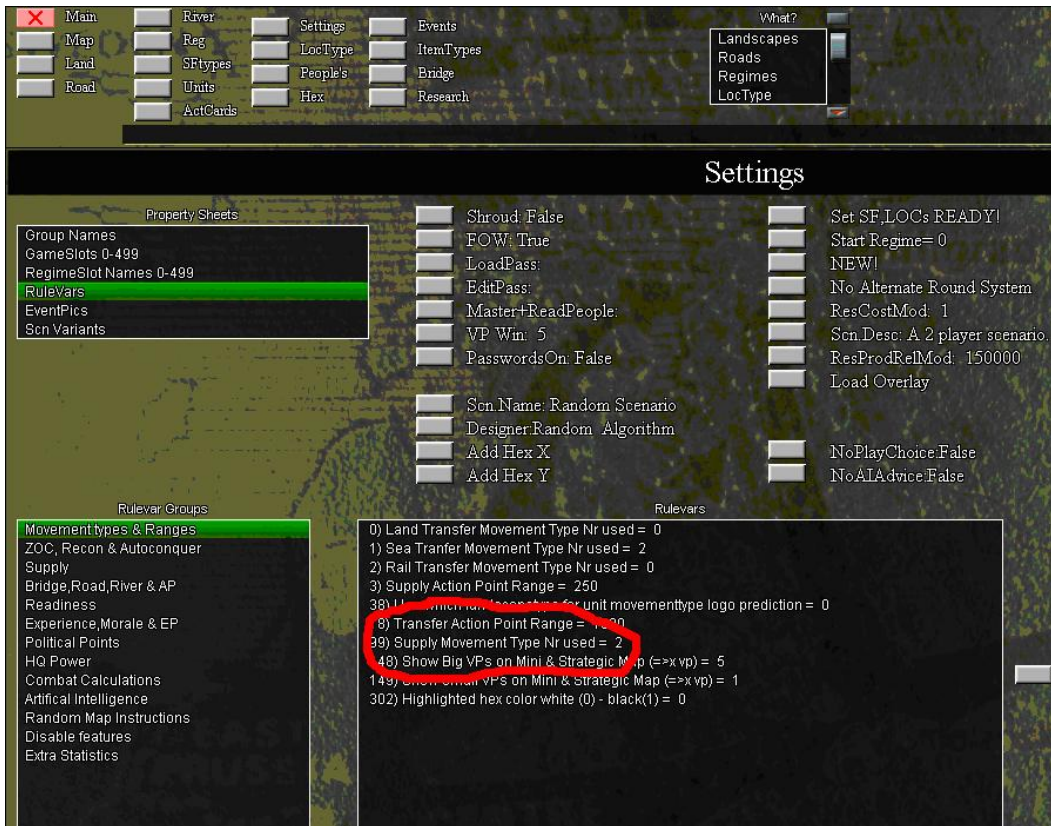
Also in the land tab is the cost to entrenchment. The first number is how many entrenchment points increase each turn the unit does not move. The second is the maximum entrenchment.



Step 13 - Modify rules

We now are down with the land tab and go into settings - rulevars. There are many sheets here. One of the things we must do is set the movement type for transfers and supply (since it was previously erased). I want supply to flow easily so I give it the movement of tac air.

Note that the action cards are disabled in the generic master. Go to the 'disable features' sheet and enable action cards if you decide to use.



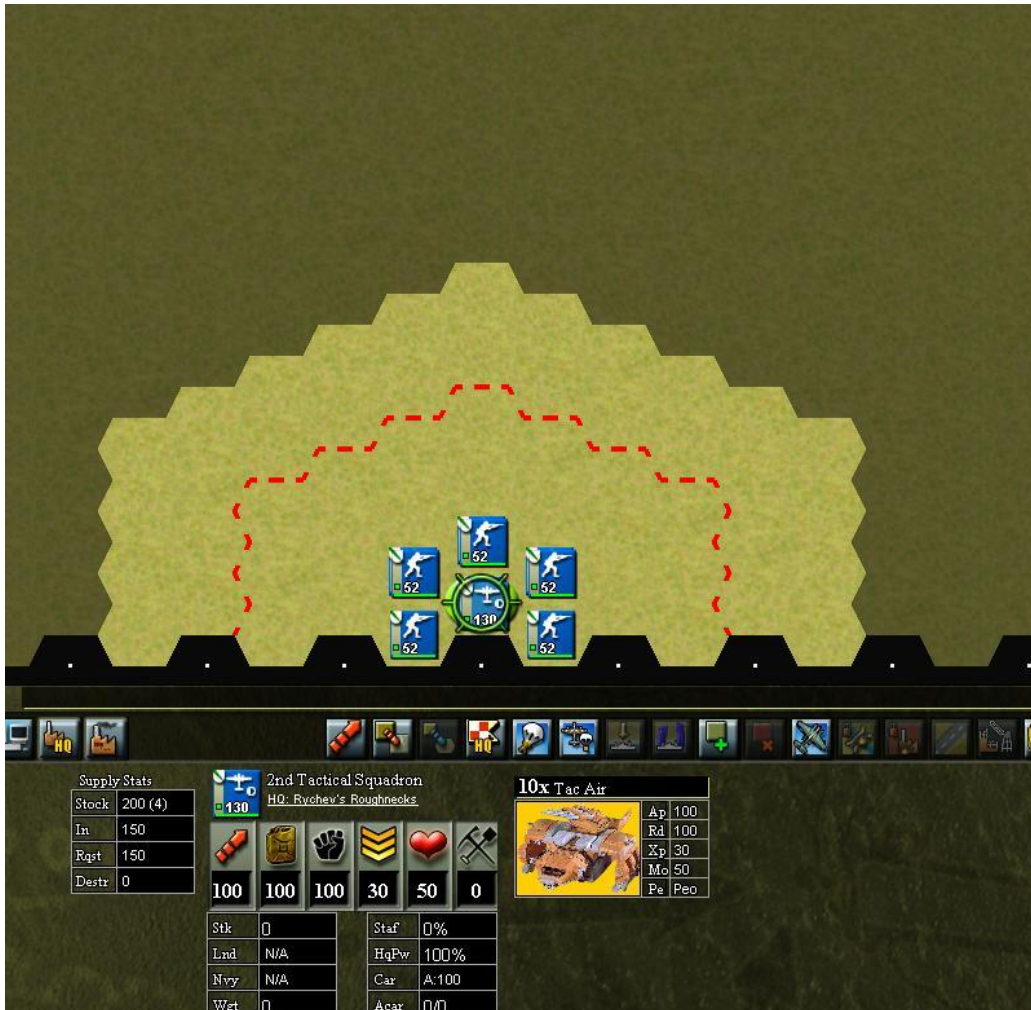
Step 14 - Make location type adjustments.

In the items sheet, we set which people group can make a unit. Now, we have to adjust which location can make a unit. To do this, go to the I set up towns to make people units. I add a new type called a 'bug hive' to make bug units. The bug hive will use the blue town hex.



Step 15. Make the scenario and play

The unit set is complete. I make a scenario by setting up some production and an order of battle on a map. It is important to test the units and then make fine tune adjustments.



I am attaching the scenario. It has not been tested for balance. The bugs have very weak units but enormous production capability and do not need supply (they can not be cut off).

The Mobile Infantry have awesome fire power and mobility but limited numbers.

If there is any interest in extending this, it would be interesting to:

- adjust graphics
- add / adjust units
- build scenarios / stories

If you want to make a unit set to cover a different period (e.g., ancients, 18th century), I would make the unit set and then test with a simple map with varied terrain (make it a proving grounds). This is a good way to work out the kinks before making any more elaborate scenario.

Notes:

Setting research to -1 means that the upgrade cannot be researched.