0.1 Resources

Resources convert from Vicky RGOs. In particular, the `crude_oil`, `metal`, `rare_materials`, and `energy` fields of `config.txt` regulate how much weight each Vicky resource has for the eponymous HoI resource; each RGO then has this weight (if not listed, it is zero) times its `last_income` field.

0.2 Manpower and leadership

All POPs listed in the `fightingClasses` object have a redistribution weight for manpower equal to their size, *unless* they work in an RGO type listed in the `manpower` object, in which case their weight is calculated as for a resource. Notice that by default the `manpower` object contains RGOs that have nonzero weights for resource, and the weights in it are all zero. The effect is that labourers who work in resource-giving RGOs do not give manpower.

Leadership is redistributed according to the size of the POP types listed in the `officerClasses` object.

0.3 Industry

Vicky factories convert to HoI industrial capacity with a weight proportional to their profit; the world total of IC remains what it is in the input file. Unemployed and subsidised workers count as making `minimumProfitRate` for weighting purposes, but the IC they create starts damaged. Employed workers who make a positive profit less than `minimumProfitRate` count as making it; this means that it is never useful to close a profitable factory, though there is some advantage to having factories that are only just barely profitable.

0.4 Governments

Each converted nation gets the government of the historical nation it most closely resembles, provided no other nation resembles it even more. That is, a resemblance is calculated for each pair of converted and historical nations. The highest resemblance is then assigned, then the next highest for which neither converted or historical nation has already been used, and so on until all converted nations have a government. For example, suppose the converted nations are SWE, DEN, and NOR; and the historical nations are GER, ENG, and FRA. Suppose further that the resemblances are thus:

```
SWE - GER: 10
SWE - ENG: 8
SWE - FRA: 3
DEN - GER: 9
```

```
DEN - ENG: 7
DEN - FRA: 2
NOR - GER: 2
NOR - ENG: 4
NOR - FRA: 3
```

Sorting this list from highest to lowest, we get:

```
SWE - GER: 10
DEN - GER: 9
SWE - ENG: 8
DEN - ENG: 7
NOR - ENG: 4
NOR - FRA: 3
SWE - FRA: 3
DEN - FRA: 2
NOR - GER: 2
```

Thus, SWE gets the historical GER government, and SWE and GER are struck from the list, leaving:

```
DEN - ENG: 7
NOR - ENG: 4
NOR - FRA: 3
DEN - FRA: 2
```

Then, DEN gets the historical ENG government and these tags are struck, leaving only the final resemblance, from which NOR is assigned the FRA government.

Resemblance is calculated from the `govResemblance` object in the configuration file. For example, consider the resemblance object to Sweden:

```
SWE = {
  scale = 0.5
  government = {
    fascist_dictatorship = 0
    proletarian_dictatorship = 0
    presidential_dictatorship = 0
    bourgeois_dictatorship = 0
    absolute_monarchy = 0.1
    prussian_constitutionalism = 0.8
    hms_government = 0.5
    democracy = 0.8
  }
}
```

This says that a Victoria nation gets 0.8 resemblance points to Sweden for having the `prussian_constitutionalism` government, 0.5 for `hmc_government`,

and so on. Resemblances are multiplied by the `scale`, which is 1 by default and smaller for historically-minor countries like Sweden; this means that a country which equally resembles Germany and Sweden will get the German government if it is available. In addition, human countries get a bonus of `humanFactor` to all resemblances listed in the config file, to advantage them over AI minors in the scramble for interesting governments. There is also a tiny random factor to break ties.

Fields marked 'numerical', such as plurality, create a resemblance of their `value` key times the number in the Victoria country. Fields with a 'target' keyword look in the nested sub-object of the Victoria nation rather than the top level.

0.5 Leaders

Each nation, in HoI and Vicky, is considered as a point in army-navy space; its coordinates are given by its strength relative to the strongest nation. Thus a nation with the largest army, but a navy half the size of the largest navy in the game, is at the point $(1, 0.5)$. Strength of armies is simply the sum of all regimental strengths. For navies, it is the sum of the weights of all ships; the weights are given in the `[hoi,vic]Ships` fields of the config object.

Each Vicky nation gains the historical officers of a HoI nation. The officers of the strongest HoI nation - that is, the one with the highest sum of army and navy strength - are handed out first, and go to the nation closest to it in army-navy space. Leaders are then handed out in descending HoI order of army plus navy strength, always going to the nation closest in army-navy space which has not yet received leaders. Vicky nations with less than 0.01 combined strength are always considered 1 unit further away than they really are, to ensure that mid-ranked historical nations are handed to mid-ranked Vicky nations rather than to minors with no army, which technically may be closer - that is, (0, 0) is closer to (0.1, 0) than (0.21, 0) is, but we want to prioritise the second nation, which actually has an army.

0.6 Buildings

HoI naval bases are redistributed weighted by the Vic ones.

0.7 Orders of Battle

Land units are created in numbers equalling the vanilla setup, so that each nation gets a number of HoI units proportional to the amount of the corresponding Victoria units it has. For example, all four kinds[1] of Vicky cavalry

[1] And really, does any game need four kinds of cavalry?

(cavalry, dragoon, hussar, and cuirassier) correspond to HoI cavalry. Consequently, if a nation has 25 Victoria cavalry regiments (all kinds) and the total of such units in Victoria is 100, then it gets HoI cavalry equal to one-fourth of the amount that exists in the input save. The unit correspondences are listed in the `unitTypes` object of the config file. Notice that reserve units (from mobilisation) do not count as infantry; notice also that not every HoI unit type has a corresponding Victoria one.

In some cases additional units will be created. For example, the 1936 setup has only two armoured brigades (as opposed to light armour), which is experentially a somewhat absurd constraint to impose on a Victoria game in 1936. Consequently additional armoured brigades are created in accordance with the `extraUnits` field:

```
extraUnits = {
  armor_brigade = { tank 5 10 15 20 25 35 50 75 100 125 150 175 200 225 250 300 35
}
```

which says that if the world contains 5 tank units, an additional armoured brigade is created, another at 10, and so on up to 600; after 600 there is one for every 100, the difference between the last and the second-last entries.

A sufficient amount of divisions, corps and higher formations, with headquarters, are created to house the lower formations; so three (identical) brigades form a division, three divisions (identical or not) form a corps, and so on. Any formations at loose ends are attached to the single theatre that is created for each nation.

Ships are redistributed at random, weighted by the naval strength of nations. Naval strength is defined as the sum of the weights given in the `vicShips` field (that is, a dreadnought is 60, a cruiser 20, and so on), averaged with the naval support limit (which comes from naval bases), *unless* the former is higher than the latter, in which case the naval force limit is used. Thus, suppose my naval force limit is 100. If I build a single dreadnought (weight 60) my naval strength is 80 (average of 60 and 100). If I build another dreadnought (bringing the total weight to 120) my naval strength is 100 (the force limit).

0.8 Techs

Most human players will be fully teched by 1936, so there is little to distinguish nations on this point. The tech conversion is therefore intended mainly to activate the obvious stuff, so players don't sit about unable to build infantry divisions in 1936. The config file's `techConversion` object contains fields of this form:

```
vicTech = { hoiTech hoiTech ... }
```

where each `hoiTech` is increased to level one if the nation has the `vicTech`. Otherwise all HoI techs start at zero.

Practicals are gained from units, as regulated by the `practicals` object. For example, the field

```
infantry_practical = { infantry }
```

indicates that Vicky infantry, as one might expect, gives the HoI `infantry_practical`. In particular, the nation with the most Vicky infantry gains the highest practical that exists in the input save; everyone else gets an amount proportional to their infantry. Thus if the highest practical in historical 1936 is 10, and Russia has 1000 infantry regiments in Victoria, a nation with 500 infantry regiments will get 5 infantry practical. For this purpose forts and naval bases are weighted by level, and factories by the number of employees.

0.9 Laws

0.10 Miscellanea

Manpower, officers, and resource stockpiles are distributed from the input, proportionally to the quantities listed in the `stockpiles` object. The first entry indicates where in the HoI country object the field is placed; the second, in what sub-object to look for the Vicky quantity; the third and subsequent, the Vicky keywords. In both cases `country` refers to the top-level nation object. Note that for HoI, `cap_pool` is not present in the input save; it is constructed by the converter, and moved to the nation's capital province after resources have been distributed.