Chapter 1

Provinces

The converter sets:

- Province ownership

- Province control

- Province basetax

- Province manpower

- Province religion and culture

- Cores

- Buildings

- Discoveries

1.1 Province ownership

Ownership is decided by holding the County title. In the case of several CK provinces mapping to one EU province, the decision is by plurality of the CK titles weighted by base tax, with tiebreaking effectively random.

1.2 Control

Control is based on occupation of the baronies, including the county seat. Unoccupied baronies count as held by the province owner.

1.3 Base tax

Redistributed from the EU3 base tax, with weight equal to the tax income of all holdings in each CK province corresponding to the EU3 province. In

cases where a CK province maps to more than one EU3 province, the weight is divided equally between the EU3 ones. Note that the tax income is not adjusted for technology.

1.4 Manpower

Redistributed from EU3 manpower, with weight given by the levy size of the CK holdings in each province; otherwise the algorithm is the same as for base tax. Light infantry counts only one-half in the weighting.

1.5 Religion and culture

Converted according to the mappings in `religion_mappings.txt` and `culture_mappings.txt` respectively. In the case of multiple CK provinces, weighted by base tax. In the case of culture, some large CK2 cultures are broken up by region, such that, for example, 'german' converts differently depending on the de-jure duchy it is found in:

```
link = { ck2 = german eux = pommeranian de_jure = d_pommerania }
link = { ck2 = german eux = pommeranian de_jure = d_pomeralia }
link = { ck2 = german eux = pommeranian de_jure = d_mecklemburg }
link = { ck2 = german eux = prussian de_jure = d_livonia }
link = { ck2 = german eux = prussian de_jure = d_prussia }
link = { ck2 = german eux = prussian de_jure = d_polotsk }
```

1.6 Other

All buildings are removed. In addition, the history is cleaned of events containing any of the keywords listed in `keywords_to_remove` within `config.txt` with the key `province`.

1.7 Cores

EU3 nations get cores on all CK provinces that are part of their de-jure primary-tier titles; that is, Emperors get cores on all their Empire titles, Kings get cores on their Kingdom titles, and so on. Baronies do not give cores.

1.8 Buildings

All buildings except forts are removed. Forts are converted from the CK fortifications: The total `fort_level` of each CK province is counted - note that all baronies contribute. EU provinces having a CK province with more than

95% of the maximum CK fort level then get a level-3 fort; more than 85%, a level-2 fort; and so on. These numbers can be changed in the `fortLevels` object of `config.txt`.

1.9 Discoveries

All provinces that have a CK equivalent are set to be discovered by the western tech group. In addition, any tech groups listed as `removeFromDiscoveries` will be set to not have discovered the CK area.

Chapter 2

States

The following state-level variables are handled:

- Vassals.

- Government types.

- Culture.

- Religion.

- Monarchs.

- Sliders.

- Armies and navies.

- Miscellaneous minor variables.

2.1 Vassalisation

The CK vassal structure is followed. If a CK primary title converts, and it has a liege which also converts to a different tag, then the first EU nation becomes the vassal of the second.

2.2 Government type

Depends on the succession law. CK titles with law `patrician_elective` become merchant republics; all others become feudal monarchies or empires, depending on the tier of their primary title.

2.3 Culture

State culture is determined by the CK culture of the ruler and all his vassals, as follows. Each ruler is given some weight for each title he has, depending on the tier:

- Empire, Kingdom - 1 point

- Duchy, Barony - 1.5 points

- County - 2 points

Note that counties are most highly weighted; this is to attempt to reflect the makeup of the nobility of the country at large. The emperor is a distant figure, as are Kings, while Barons are not very powerful; it is the local Count who determines whether the peasants are under a "foreign yoke" or not. These weights can be set in `config.txt`, where they are given as `e_weight`, `k_weight`, and so on.

Once the title weights have been summed, they are divided by distance from the sovereign ruler: Divide by 1 for the ruler himself, 2 for his direct vassals, 3 for their vassals, and so on.

Titles which have a "special de-jure rule" as described in section 1.5 give weight to their special culture instead of the most general one; the weight is the same.

The culture with the most weight becomes the primary culture. Cultures with weight at least 20% of the primary culture's weight become accepted.

2.4 Religion

Converted in the same way as state culture, except that there is no special treatment of particular regions.

2.5 Monarchs

Converted from the CK rulers. As a simplification, the ruler's birth date is taken as the start date of his reign. The military score is calculated as nine times the character's percentage rank (among rulers) in trait-adjusted martial score. That is, the ruler with the worst martial score gets 3 MIL[1]; the ruler with the best score gets 9. Everyone else gets nine times their percentage of the distance between the two. For example, if the best martial is 10 and the worst is 2, then a ruler with martial 4 is 25% of the distance from worst to best, and therefore gets a MIL score of 5.25, which is rounded down to 5.

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[1]EU3 ADM scores run from 3 to 9.

The admin score is calculated similarly, but with equal weights for stewardship and learning; the diplomacy score gives equal weight to CK diplomacy and intrigue.

Heirs are generated from the oldest living son of the CK monarch, or oldest living daughter if there are no sons; if there are no children, no EU heir is created. The conversion is otherwise the same.

2.6 Sliders

All sliders are set to be between the limits in `config.txt`, eg `pluto = { -5 0 }` indicates that converted aristocracy varies from -5 (the EU minimum) to 0 (halfway to full plutocracy). All effect sizes are set in `config.txt`; the below refers to the defaults. For each slider, each CK ruler counts up all his effects, then divides by the difference between highest and lowest, making a percentage. He then gets a slider number which is that percentage of the way from the lowest possible to the highest. For example, the median plutocrat gets Plutocracy=-2.5, which is rounded up to -2. All effects that depend on titles (ie laws) are multiplied by the tier of the title, with Barony being one.

- Plutocracy: Each city barony in held counties gives a point, each castle subtracts one. High city levy laws add points, feudal levy laws subtract points; high feudal taxation adds, high city taxation subtracts. This is on the grounds that the people supplying armies are powerful while the people paying taxes are downtrodden. Finally, having the `patrician_elective` succession law - indicating a merchant republic - gives a boost to plutocracy.

- Decentralisation: Each holding gives a point, meaning large empires are less centralised; further, the Crown Power laws increase centralisation.

- Narrowminded: Increased by church holdings, decreased by city holdings. Having Papal investiture also increases narrowmindedness.

- Free trade: Affected only by techs. The reasoning is that advanced technology allows governments to impose controls on trade, so that "free trade" is not an ideological but a default position taken by primitive countries.

- Defensive: Again technology, but in this case also buildings. Castle Infrastructure and Improved Keeps are defensive, while Tactics, Military Organisation and Siege Equipment are offensive. Knights are offensive, pikemen and fort levels are defensive.

- Naval: Galleys give points for naval. All holdings give points for land, cities less than the other two kinds.

- Quantity: Based on buildings. Knights and heavy infantry give points for quality, light infantry for quantity.

- Free subjects: Technology. Majesty and Legalism give serfdom, Popular Customs and Cultural Flexibility give freedom.

2.7   Armies and navies

Armies are converted by giving one EU3 infantry regiment per `unitConversionRatio` retinue units, to a maximum of `maxArmySize`, placed in the capital.

Navies are created in proportion to the number of galleys supplied by the CK buildings in a nation. The total number of EU3 ships is equal to the number in the input save; they are evenly distributed between carracks and cogs. They are placed in EU3 provinces that:

- Convert from CK provinces supplying galleys

- Are owned by the EU3 nation in question

- Are not in the `forbidShips` list - this allows for cases where CK coastal provinces convert to EU3 inland ones.

Where possible, EU3 provinces that contain navies in vanilla are preferred.

2.8   Minor variables

The EU3 gold is redistributed in simple proportion to how much CK gold the converted ruler has, except that negative gold is counted as zero and the minimum amount of gold is `minimumGold`, to avoid instant loans.

Prestige is converted in proportion to the sum of prestige and piety. The constant of proportionality is such that the greatest CK score (positive or negative) converts to the greatest EU prestige (positive or negative), or the value of `minimumMaxPrestige` in the config file.

Capitals are set, where possible, to match the CK capital. If that can't be done, the counties and baronies of the ruler are searched, and the first one corresponding to an EU3 province owned by the nation in question is used as a capital. If that doesn't work, all EU3 provinces are searched, the first one owned by the nation being used.

Stability is set to zero, as is badboy. Missionaries, colonists, and so on are set to zero. Manpower is set to 1000. All national ideas are removed.

Military unit types are set to western medievial infantry and cavalry, carracks, galleys, and cogs.

All three traditions are set to zero.

Inflation is set to zero.

Legitimacy is set to 100%.

The history is cleaned of events containing any of the keywords listed in `keywords_to_remove` within `config.txt` with the key `state`.

Tech group is set to western. Production, army, and navy tech levels are found by calculating the median base tax, manpower, and number of galleys per holding in the CK provinces of each EU3 nation. Those with at least 75% of the maximum then get level-4 tech (where manpower governs army tech, galleys naval, and base tax the three others); those with less than 25% get level-2; and everyone else gets the standard level-3 starting tech. The top and bottom levels are adjustable in the `techLevels` object of `config.txt`. For trade and government techs, the median level of, respectively, economy and government CK techs are used instead.

Chapter 3

Miscellany

3.1 The HRE

The Holy Roman Empire is formed from the wealthiest empire in CK. If there are no empires, no HRE is created. All vassals of the emperor are made members of the HRE, and their land is made part of it; the 7 (by default; governed by `numElectors` in `config.txt`) wealthiest are made electors. This will include the emperor himself except in extremely unusual circumstances.

3.2 Centers of Trade

COTs are created in the capital of each merchant republic. The owner gets five merchants in it; ten merchants are distributed among those other nations in which the CK owner (Doge only) has trade posts. This number can be adjusted in the field `numForeignMerchants` in `config.txt`.

3.3 Wars

Wars are converted from CK wars if at least one character one each side converted to an EU country as its sovereign. That is, if the Duke of York is at war with Scotland, the war converts only if York is sovereign in EU3; if York converts as part of England, England does not start at war with Scotland.

3.4 Papacy

The Catholic ruler with the highest piety is set as the Papal Controller. Cardinals are created from the Catholic bishops with the highest learning, and assigned to the owners of their respective provinces.

Papal influence is set proportional to piety, with the papal controller (who is the most pious Catholic) getting the amount `maxPapalInfluence`

from `config.txt`.

3.5 Generals

Each CK marshal becomes a general of his EU nation. (Note that where several CK rulers were subsumed into one EU nation, there can be multiple generals.) He gets the square root of his Martial score as Shock, plus one to the listed attribute for each trait he has that appears in the object `general_traits` in `config.txt`. Traits that appear more than once confer multiple stat increases.

3.6 Advisors

Advisors are created from councilors who are not marshals. The type of advisor is decided by, firstly, the council position; for example, Chancellors can become the kind of advisors listed in the `job_chancellor` object in `config.txt`. Second, among these candidates the character gets points for attributes and traits, for example:

```
grand_captain = {
  diplomacy = 1
  inspiring_leader = 10
}
```

indicates one point for each point of diplomacy, and 10 points for the Inspiring Leader trait. The character becomes the advisor type with the most points, of a level equal to the square root of the points. He is placed in the capital of his nation.

Notice that not every EU3 advisor type is necessarily possible; the default `config.txt` leaves out navy-related, colonial-related, and useless advisors.