Dunk!

html2latex

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Dunk

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- A PBM of creation

This is the English version of the still developing Play-By-Mail game Dunk. Dunk was a very simple game, but now it has grown more complex and there are many technologies that makes the game more interesting later in a campaign.

Right now Dunk is being play-tested as it has been since 1996. At http://www.xnetz.com/dunk/ you can apply for a campaign. Dunkmaster Hedda can be mailed at hedda@lysator.liu.se.

1.0 About these rules and Dunk

Dunk is a Play-By-Mail game designed and programmed by Henrik "Hedda" Wallin. Information about Dunk is available from http://www.xnetz.com/dunk/

In Dunk you are the leader of a kingdom in a fantasy world. In the beginning of the game, your kingdom is at stone-age level. Therefore it is not possible to build up your power with towns and mines. But after a while, the game becomes more complex thanks to the new technologies that your people discover.

It is very important to have good relations with other kingdoms to avoid wars that can be devastating and to trade. It is also important to develop your kingdom by building things and developing new technologies. To build new towns is often much more profitable than starting a dreadful conquest.

These rules are not made to be read from the beginning to the end. Instead the goal has been to make them easy to use as a reference guide and to make it easy for beginners to write their first orders without knowing much of the mechanisms in the game.

The chapter names, perhaps, say it all but this is important to point out:

2.0 Introduction to Dunk must be read to understand the rest of the rules.

Always read 5.0 Sequence of actions very carefully and think about what this means for your orders.

8.0 Technologies may be fun to read, but use this chapter more as a reference.

Refer to 18.0 change-log for the latest changes in these rules.

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2.0 Introduction to Dunk

In this chapter some general concepts in Dunk are explained.

- Provinces

Each kingdom controls a number of hexagonal provinces. In the provinces different *structures* can be built. Structures can be anything from roads to towns. Every province is populated by one race or nobody and only populated provinces can give income.

- Armies

To conquer new provinces or to defend your kingdom you need armies. Some armies are immobile (like sky_castles), but everything that can fight is an army, and not a structures.

- Dunkmaster

The Dunkmaster is the one who runs the updates and maintains the game. Please send bug-reports to him.

- Campaign number

Every Dunk-campaign has a number. This should be used in communications with Dunk and Dunkmaster. Campaigns also have names, but that is just for fun.

- Parentheses in the rules

The parentheses in the rules are only there to show that the text should be replaced with something else. Example:

```
campaign (campaign number)
```

In your orders you should write this as:

```
campaign 2
```

or whatever the campaign number is.

- Technologies, tech:s and soc:s

The technologies that your kingdom may discover are divided into tech:s and soc:s (social technologies, pronounced "soses" by me). Read more in 8.0 Technologies.

3.0 How to play Dunk

In this chapter all the practical things about how to play Dunk are described, how to send in you orders and what a moron you are if you send questions to Dunkmaster to the dunk-address.

3.1 Deadline

Never forget a deadline! Do not be afraid to send some preliminary orders at once, because you can always send new orders and only the last ones are used.

3.2 How to give your kingdom orders

There are two ways to give your kingdom orders. You can either use the web interface or send the orders as an email. Using the web interface should be very easy. The only things you need to know is:

Orders format

An order is written on one line. If there is a > in the beginning of a line the whole line is ignored by Dunk.

If you want to write very long lines that your program does not accept, just write \ in the end of the line you want to continue or \ in the beginning of the next line.

You can never delete orders that you have sent in, but you can replace them with new ones.

Sending orders via email

At present Dunk can be reached at dunk@xnetz.com. Emails to this address are not read by any human and Dunk may read even email not supposed to be orders as orders and do very nasty things to your kingdom.

As subject of your email with orders you should give your campaign number, or else you have to write:

```
campaign (number)
```

in the beginning of the email.

Then you paste in the orders sheet. But make sure to spell your kingdom name correctly. The orders always start with

```
begin orders (kingdom name) (turn number) (version number)
```

and end with

```
end orders (password)
```

If you manage to figure out some other players password you can send orders for that kingdom, but Dunkmaster will see if you try something like this and you will be kicked out and never be able to enter a Dunk-game or many other PBM-games afterwards.

If you already have sent in orders, but want to send in some orders just for fun or something, you can write

```
begin test (kingdom name)
```

instead of begin orders. These orders will not be saved or used. **end orders**
(password) is still required.

The turn and version number is a way to be sure that mails that get delayed
for some days somewhere not suddenly become your current orders. They are
both optional.

If you do not receive an automagically generated answer to your orders within
a few minutes, always contact Dunkmaster and assume that your orders have
been lost somehow. Use a higher version number next time. Act in the same
way if strange mail-errors occur.

If an email with orders contains $$$$$$$$$$ the email is ignored because
Dunk thinks the email is sent out by Dunk itselves and something made it
bounce. This will happen if you for example attach the turn report to your
orders so do not do that.

3.3 How to read your kingdom report

Here is a short description of the parts of the report.

Your orders

First in the report, your orders are shown, and thereafter Dunk's interpretation
of them. Some orders like build_mine gives more information in the report than
in the auto-reply, but most commands look just the same.

Other happenings

Then a lot of reports about what has happen in your kingdom are listed. Some-
times you hear rumours here. Do not trust them to much...

Battle reports

Read more in 6.0 Battle.

Kingdom Status Report

First your diplomatic status and then all your technologies are listed. Provinces
are listed in a compact way. 'T' stands for Terrain and the letters for the
different terrains. The plague-column is only used if there is a plague in the
province. Read more in 13.1 Pestilence.

The ASCII-map

The ASCII-map is not so beautiful but it can be good to look at if you for some
reason can not use the GIF or Postscript maps. Every hex is described like this:

```
              PPP <- Province number PPP.
   owner NN--> NNt <- 't' = town, 'v' = village, otherwise ' '
Terrain T---> Tra <- armies: 'a' = only ours, 'e' = only foreign,
 'f'=forest    |               ' ' = none, 'b' = ours and foreign.
 'g'=grassland \--------\
```

```
'l'=land              'r' = has roads, or is a water province.
'm'=mountain          ' ' = needs a road if you want to export
'w'=water                   through this province.
```

Dunkmaster speaks

In this section some news or something about nothing is written by Dunkmaster.
This is seldom use nowadays.

Orders sheet

Last in your report there is an orders sheet that you can use to write your
orders. Just copy it and change in it and add orders to it if you want.

Note that if you possess the technology "province_plunder" the plunder or-
ders of armies in a province with a village, farm or warg_farm, the plunder order
is commented out.

3.4 How to understand the GIF-map

Each type of terrain has one colour and maybe a texture.

```
Terrain      colour        texture
Forest       Dark green    Yes
Grassland    Light green   No
Land         Brown         Yes
Mountain     Grey          Yes
Water        Blue          No
```

The colour of the province number tells which race the province is populated
by:

```
Race      colour
Ducks     White
Dwarves   Yellow
Elves     Light green
Humans    Blue
Orcs      Red

None      Black
```

Armies are drawn on the left side in each province, but only the first 4. If there
are more, you have to read your turn report. Town_guards are however drawn
above the town.

The structures village, town, mine (black hole...), irrigation (blue ribbons),
roads, worm_factory, fishing_boats and warg_farm/stable (a white #), church,
lumber_production (Green axe) are the only ones that are drawn.

The armies and borders of other kingdoms are drawn in their kingdom colour.
This colour is often similar to the race colour described above. The colours are
listed in the legend below the map.

Plague is drawn as a red cross. Towns with plague are drawn red (normally
they are drawn white).

3.5 Mailing list

There is a mailinglist for discussions about the Dunk-rules. It can be mailed to at dunk1@onelist.com and joined at http://www.egroups.com/community/dunk1 (This used to be a onelist, but Onelist was bought by Egroups).

4.0 Orders

In this chapter all orders that all kingdoms can use are listed. Technologies may add more orders, but they are listed in 8.0 Technologies.

The orders are divided into game-administration orders, standard orders and technology orders.

4.1 About orders in general

Orders are in most cases carried out in the order you give them and in the beginning of the turn. All orders from different players are carried out "simultaneously", i. e. they never depend on other players' orders. Some orders, like give_gold, take your gold at once, but they are not delivered to the happy one until later in the turn.

Underscores (_) in your orders can always be replaced by an empty space if you want to. The underscore is just there to annoy you.

The orders are named according to the following principles:

Structures are built with build_(structure type)
Armies and even immobile armies are built with place_(army type) or just place
New technologies are developed with develop_(technology name)
give_(what) (amount or specification) to (kingdom number or name)

And then there are set-orders, write-orders and some special stuff.

Most standard orders can be abbreviated with the first letter of each word in the order. Example: place is abbreviated p and army_to_village is abbreviated atv.

4.2 Game-administration orders

- every turn:

Everything that is written on the same raw after "every turn" is interpreted as a normal order. That order including "every turn" is added to your orders sheet. It can of course be shorted "et". Example:

`every turn: give map 13`

- next turn:

Everything that is written on the same raw after "next turn" is added to your orders sheet. It can of course be shorted "nt". The order after "next turn" will not be followed this turn. Example:

`next turn: give map 13`

- resign

Use this order if you have to quit playing the Dunk-campaign. You will however receive one more report.

- send_report

Sends you the latest report with maps and stuff. This is only used by the autoreply-program and the order is ignored during the update.

- set_ascii on/off

`set ascii off` tells Dunk that you do not want ASCII-maps anymore. `set ascii on` tells Dunk that you want them again.

- set_email (new email address)

Changes your email-address for all campaigns. The auto-reply will be sent to the new address, which means that if you give wrong address to this order, you will not receive any auto-reply. Just send in new correct orders if this happens.

If you use this to cheat, you will be thrown out of the game immediately.

- set_gif on/off

`set gif off` tells Dunk that you do not want GIF-maps anymore. `set gif on` tells Dunk that you want them again. GIF-maps can always be viewed at http://www.xnetz.com/dunk/ no matter what you do with this order.

- set_kingdom_name (new kingdom name)

If you are unhappy with you kingdom's name, you can change it with this order. Only English letters and "_" are allowed in the kingdom name.

The actual change of names occurs after all orders are interpreted so other kingdoms shall use your old name where your kingdom is involved.

Note: Other players and Dunkmaster do not like if your kingdom changes names all the time. Make sure that this does not happen! And players do not like very long names. Hackeriputtafjodelitankappalutteria is not a good kingdom name.

- set_map_email (new email address for maps)

Maps are normally sent with the normal report, but if you want them to another address, use this order. But beware that this will affect all campaigns (set_email also changes your email for all campaigns).

- set_passwd (new password)

To ensure that only you can send in orders for you kingdom please use this order. Do not use a password that you use on another system. The password is not handled secure in any way. The password is updated for all your campaigns with this order.

- set_player_name (new name)

Use this order if you want to change your real name (like John Smiht) to something else (like John Smith). You may add funny things to your name, but please use your real name. Your name is never used in the game.

- set_nr (player number)

To make it easy to let another player take over a kingdom this order can be given. If you take over a kingdom you are often told to use this order by Dunkmaster.
    NEVER EVER USE set_nr WITHOUT ASKING DUNKMASTER!

- set_ps on/off

`set ps off` tells Dunk that you do not want Postscript-maps anymore. `set ps on` tells Dunk that you want them again.

- set_town_name (province number) (new town name)

When you have conquered a town from the enemy you often want to emphasize the new order by giving the town a new name. This order does that.

- write_email (kingdom name)

Writes the email-address of the player who rules the named kingdom. "all" can be given as kingdom name to print all email-addresses.

- write_orders

Writes the current orders that will be used in the next update. Only useful with begin test actually.

- write_race (kingdom name)

Writes which race a kingdom is ruled by. "all" can be given as kingdom name to print all kingdoms' races.

- write_tech (tech) / all

Writes information about any technology. `write tech all` writes information about all your technologies.

- worldpeace

Declares that your wish to end the game. If all players or all but one player wishes that the game will end, it will end. Kingdoms not ruled by anyone and kingdoms that have no orders sent to them always wish to end the game.
    NOTE: If the campaign does not end, you will still be a part of it. If you want to quit the campaign, use the order resign.

4.3 Standard orders

- army_to_village (army number)

Transform an army into a village. You can not build a village on water without the technology "floating_houses".
    Due to the pride of the orc warriors, orc kingdoms can not use this order for something else than immobile armies. If you order an army to become a village in a province not populated by your own race, the army will make sure it is first.
    It is possible to do army_to_village on an army that is in enemy land but that will be exactly the same as remove_army. A newly built army may not be transformed into a village.
    The province always have the same plague as the army had before this action. This means that you can remove a plague by ordering a healthy army to settle down.

- build_village (province number)

Builds a village in a province and this costs 4 gold. However, duck villages built by dunk kingdoms only cost 3 gold (They build smaller houses). A village can not be built in an unpopulated province.

A village will make it impossible for another race to move into the province (without help from armies...) and the village militia has a 50 % chance to fight down rebellions. It is possible to build many villages in one province but only the first one will have any effect.

If your kingdom builds many villages there is a chance that the technology towns will be discovered.

- burn (province number)

Only for kingdoms ruled by mages.

Your mages will try to burn every living thing in the province with different kinds of magic. This means that the province will become unpopulated, all armies will be ashes and villages, towns, warg_farms and stables will burn. Pestilence in the province will also disappear. If your kingdom possesses the technology "stone_building" there is a 50 % chance that the town is unaffected by the fire. Dwarves may also survive burn, read more in 10.3 Dwarves.

Elves (see 10.4 Elves) and towns can sometimes totally stop the burning. Towns have a 90 % chance of stopping the burning.

Sometimes your mages attack a nearby or even a very far away province, according to 14.4 Tables of magic and priest rituals. Small kingdom seldom have enough mages to perform a ritual. Read more in 14.4 Tables of magic and priest rituals.

- develop_bows

Develops the technology (tech) "bows". This costs 20 gold.

- develop_castles

Develops the technology (tech) "castles". This costs 20 gold.

- develop_irrigation

Develops the technology (tech) "irrigation". This costs 20 gold.

- develop_mission

Develops the technology (soc) "mission". You can not use your priest leaders for anything else the same turn you are developing mission.

- develop_magic_village

Only for kingdoms ruled by mages.

Develops the technology (soc) "magic_village". You can not use your mage leaders for anything else the same turn you are developing magic_village.

- develop_moral

Only for kingdoms ruled by warriors.

Develops the technology (soc) "moral". You can not use your warrior leaders for anything else the same turn you are developing moral. This means that all armies that you place this turn will only start with 1 ERF.

- pest (province number)

Only for kingdoms ruled by priests.

Develops the technology (soc) "pest". You can not use your priest leaders for anything else the same turn you are developing pest.

- develop_protect_inventions

Develops the technology (soc) "protect_inventions". You can not use your leaders for anything else the same turn you are developing this soc.

- develop_protection

Develops the technology (soc) "protection". You can not use your leaders for anything else the same turn you are developing this soc.

- develop_ships

Develops the technology (tech) "ships". This costs 20 gold.

- enemy (The number or name of the kingdom you want to hate)

Declares a kingdom an enemy of your kingdom. Read more in 12.0 Diplomacy!

- friend (The number or name of the kingdom you want to make your friend)

  Declares a kingdom a friend of your kingdom. Read more in 12.0 Diplomacy!

- give_gold (amount of gold) (player name or player number)

Gives some gold to another kingdom. Your kingdom must have contact with that kingdom. The gold will not be available in the other kingdom before all orders are carried out.

- give_map (player name or player number)

Gives all your kingdom's maps to another kingdom. If you also receive maps from other kingdoms, this info is not given away with this order. You have to give this order every turn if you want to send maps every turn.

You do not have to have contact with the other kingdom.

- give_province (province number) (player name or player number)

Gives a province to another kingdom. Your kingdom must have contact with that kingdom. The province will not be given until all orders, all battles and all occupations are carried out.

If there is a town in the province, it and its town_guard will also be given away. In other cases no armies will be given away.

You can only give provinces to allied kingdoms (read more in 12.0 Diplomacy!).

- give_tech tech (player name or player number)

Gives a technology that your kingdom possesses to another kingdom. You have to be in contact with that kingdom. There is no problem using any technology except for the ones dedicated for wrong type of leaders. This means that you can use armour even if do not have iron.

You can also write "all" as the technology. This gives all your technologies to the other kingdom. This can sometimes give away technologies by mistake... Beware!

The tecknology diburn can not be given away.

- move (army number or name) (direction) [direction2 direction3 ...]

Moves the army, cavalry or whatever it is in direction "direction". "direction" can be nw, w, sw, se, e, ne or 0 (a zero = do not move). If you do not give an army an order it will continue in the last given direction, but it is a good idea to always give all armies orders.

It takes two moves to move into a mountain province. In the first move the army will stay in the first province, but will climb into the mountains near the mountain province. Next move it can move into the mountain province or simply go in another direction as if it was in the first province.

If an army moves from a province with roads to another province with roads and both provinces are friendly, the army can move one time extra before the normal movement. Ships and mounted armies can do this without roads.

It is possible to give an army movement orders for many turns. However, the army will only add the unused directions to your orders sheet, but this is still a nice way to plan great conquests. But remember that it takes two orders to enter a mountain province!

NOTE: if you want to move your army to the province to the west, but that army can move two provinces you have to write '0' after 'w':

```
> This moves the army west and then it stops:
move 1 w 0
> This moves the army west and then it will continue
> to move west in the same turn if it can:
move 1 w
```

If you have read chapter 5.0 very closely you sometimes finds this useful in battles (this is nothing for beginners!):

```
 wait    = don't do anything in the first movement phase
 unclimb = removes the army from any mountainside.
           This takes no time!
```

Some examples:

```
> Move west but not in the first phase:
move 1 wait w
> Do not move this turn, but move west next turn:
move 1 0 w
> Move west, but if the army is climbing the the mountains to
> the west it will start over from the beginning:
move 1 unclimb w
> The same, but it will not try to reclimb the
```

```
> mountains in the first phase:
move 1 unclimb wait w
> These two are the same: (Last unclimb never done)
move 1 w unclimb w unclimb
move 1 wait w
> These two are the same:
move 1 unclimb w unclimb w
move 1 wait unclimb w
> And if the province to the west is an enemy province
> this is the same too:
move 1 unclimb w
```

This may seem complicated, but always remember that the armies will try to do your orders as fast as they can.

If you possess some sort of training technology you can use `death_train` or `train` instead of a direction.

Note: Instead of the army number you can give the army name. Example: `move 2nd Archers e se`

This is what the orders sheet will suggest.

- neutral (The number or name of the kingdom you want to be neutral to)

Declares a kingdom neutral to your kingdom. Read more in 12.0 Diplomacy!

- place (province number) [directions]

With this order you can train new armies and place them in a province. If you want to move them in the same turn you place them, you can give them normal move-orders (See "move").

An army costs 2 gold for orc kings, 3 gold for ducks 5 gold for humans, 7 gold for dwarves and 9 gold for elves.

New types of armies that your technologies allow are placed with `place (type of army) (province number) [directions]`

- place_warg (province number) [direction direction]

Can only be placed in a province with a warg_farm (There is no way to get one of these if you do not have one) and each warg_farm can only produce one warg_army each turn.

A warg_army costs twice as much to build as normal armies. See 14.2 War tables about the army's strength and 14.1 Economy about the cost to maintain this mounted army.

- remove_army (army number)

Removes an army, sky_castle or other military toy. This can give you crime. A newly built army may not be removed.

- remove_town (province number)

Removes a town. This can give you crime.

- remove_village (province number)

Removes a village. This can give you crime.

- remove_warg_farm (province number)

Removes a warg_farm so that you do not have to pay maintenance for it.

- warg_army_to_farm (warg_army number)

Builds a new warg_farm out of a warg_army. This is the only way to build new warg_farms.

4.4 Technology orders

All orders that require a technology are described in 8.0 Technologies under the required technology.

5.0 Sequence of actions

Here the order in which things take place is described.

The basic rule is that all actions of the same type are carried out simultaneously. Sometimes the order of a player's orders can be important, but one action of a kingdom is almost always carried out independently of other kingdoms' actions of the same type. But if you for example plunder in a province belonging to an allied, then your orders may come before or after that kingdom's orders.

Phase	Description
Orders	All players' orders are carried out in the order they are written.
Delayed orders	In this phase all orders like burn or mission take effect. Given gold and technologies also arrive at the receivers. The giving of provinces happens right before migration though.
First army moves	During this phase every army that fulfill one or more of these conditions moves. The army also has to move inside allied land to move in this phase.
Movement battles	All armies that encounter enemies fight during this phase.
Movement	All armies that killed all their enemies, or that encountered none, move in this phase.
Battle	All armies fight with enemy armies if there is someone in their province.
Starvation	All rebel armies in provinces without population starve to death during this phase.
Resurrection	All priest kingdom that have not used their leaders for any order (like develop_mission or mission) will try to heal the kingdom's best army (The army with the highest ERF) that died in its own land.
Desertion	(- your gold) percent of your armies will desert if you have negative gold.
Havoc	All provinces with enemies in them will be out of control. (This happen before income, but it is reported after the income in the report.)
Income	All gold from provinces, towns and other things will be brought to you now. You also pay for all your armies. All towns that buy a townguard do this now. NOTE: This happens before you occupy provinces!
Occupation	All armies that stand in an enemy's (or not owned) province will occupy it if there is no army there to stop them. There is also a chance to steal technology. See See 14.5 Miscellaneous tables for details.
Migration	First given provinces change kingdom, then different races move into provinces.
Rebellion	Some provinces and trolls may rebel in this phase.
Plague	Plagues brings death and happiness to the world.
Catastrophes	Different funny things bring happiness to your kingdom.
Discoveries	Some new discoveries may be discovered. Technologies developed with develop_(something) however, always become developed at the same moment as the order is given.

6.0 Battle

When the greed and the lust for power becomes too great, battle is inevitable. Here the concepts of battle are described.

6.1 How battles are resolved

The strength of an army is depending on what type of army it is, technologies and how great its ERF (Experience and Relative Fighting-skill) is. Every army starts with 1 ERF except for armies built by a warrior kingdom with leaders that do not do anything else that turn, which start with 2 ERF. The ERF is increased with one for every fight the army survives.

The army strength is the army's ERF modified with defence and race modifications. That is:

```
Army strength =
  (ERF + defence and race modifications) *
    (type of army modification)
```

See 14.2 Tables and formulas for more information.

If two armies fight each other, each army has the following chance to survive:
(army strength)/(army strength + enemy strength)

This means that both armies, one army or none of the armies may survive.

If an army is fighting many other armies its offensive strength is divided among the enemies like this:

offensive strength = (army strength)/((number of enemies)*2-1)

And the army's chance to survive become:

(army strength)/
(army strength + the sum of the enemies' offensive strength)

It should be obvious what will happen in complicated situations like when A fights B and C, B fights A and D, C fights A, and D fights B...

If you know anything about probability theory you see that this means that an army on average kills just as many enemies regardless of their number. But its own chance of survival drops. You can also see that half of the armies will die in an even battle.

6.2 Arrows and stuff

Before the armies start to hit each other they try to throw thing at the enemy. To succeed in this before the development of the technology "bows" is almost impossible, but miracles may occur.

In the ballistic battle some different modifications apply. Defence from flying things:

The army receives no bonus for "iron" or for being mounted. Ducks have no negative modification and sick armies just get half strength to defend themselves.

Attack with missile weapons:

Strength is divided by 4 if the army is not an archer army. The bonus from "iron" is only *5/4 and there is no bonus for "armour". Ducks get their strength lowered to 2/3. Sick armies get their strength halved. Elven armies use bows as if they had 3 more ERF.

6.3 Movement battles

Sometimes when armies move they encounter other armies and battles occur. This will happen if two armies are marching towards or "almost" towards each other. Two armies are marching "almost" towards each other if one of the armies is heading for the other army's province and that army is heading for a neighbouring province of the first army's province. Simple eh?

You will receive one report from each army about the battles so do not be alarmed if you receive the same report from different armies. And sometimes two armies encounter the same enemy army even if they move at different places.

6.4 After movement battles

Armies just fight their enemies in the province they are in at the moment. If an army is in its kingdom's province and have not moved it may receive a defence bonus. See 14.2 War tables for more information.

One report from each province where there was a battle will be delivered to you.

Eas aas es as

In the reports from these battles some values are reported. These are:

```
eas      Enemy Artillery Strength
aas      this Army's defensive Artillery Strength
es       Enemy melee Strength
as       this Army's melee Strength
```

Example:

(eas 2, aas 665k, es 5.32M, as 2.66M) This means that this army has almost no risk of being killed by arrows, but it has a 5.32/(5.32+2.66) risk of being killed in melee.

Of course these values give a hint whether the other kingdom does or does not possesses certain technologies.

7.0 Economy

It is very important that your kingdom has a well functioning economy. The fundamental principles are explained here.

7.1 Income from provinces

Every province that your kingdom controls gives income from taxes and mines. Normally a province gives 2 gold with these exceptions:

- Forest provinces populated by elves and grassland provinces populated by humans give 4 gold each.

- Water provinces not populated by ducks and mountains not populated by dwarves give 0 gold.

- Unpopulated provinces do not give any income (Except if there is a mine in the province).

If there is a mine in the province, it will give some extra income. See the technology mining for numbers.

Some structures in the provinces cost gold to maintain, this is drawn from your income.

7.2 Administration

Then you have to pay a lot of gold to administrate this income. See 14.0 Tables and formulas, administration cost for details. About half of your income will go to administration, but less for small kingdoms and more for great ones. You may always keep 25 % of an income increase (Except for some of the very small increases).

7.3 Income from towns

Then your towns pay their taxes. This means that no administration cost is paid for this income.

7.4 Expenditure for armies

Your armies cost a lot to maintain. An army (normal army, sky castle or whatever) in your own or allied territory costs 2 gold to maintain and other armies 4 gold. Mounted armies cost 4 and 5 gold respectively. Orc kingdoms pay 1 gold less for armies in enemy land. A town guard costs only 1 gold to maintain.

If your kingdom's gold now becomes negative, it only means that your soldiers have to wait to get paid. They will not desert and they will not starve this turn. If there is no gold for them after your orders are made next turn they will however begin to desert. The chance that an army will desert is one percent per negative gold your kingdom has. If that happen it will just dissappear (And you do not have to pay for maintaince that turn, you lucky bastard...).

7.5 Gold is saved

If there is any gold left, you may use it to build things or develop new technologies. If the gold is negative, your soldiers will remember this and take their payment later.

8.0 Technologies

This chapter explains the concepts and all technologies.

8.1 About soc:s and tech:s

Technologies are divided into soc:s and tech:s. A soc costs nothing to develop, but your leaders can not do anything else the same turn it is developed. This means that you only can develop one soc per turn and that your mages or priest can not perform any ritual or your warrior leaders can not improve the training of new warriors the same turn, which means that all new armies will have only 1 ERF.

To develop a tech, you just have to pay some money. You can develop as many as you can afford.

Some technologies are just discovered by accident and can not be developed.

8.2 How to get a technology

To get a technology, just write `develop_(technology name)`

But you can not develop all technologies and many technologies require something to be discovered before they can be developed.

In the beginning you can develop the ones mentioned in 4.3 Standard orders. Later on new technologies possible to develop will be mentioned in your turn report.

8.3 The list of all technologies

This is a list of all technologies.

armour bows castles catapults churches crime death_training diburn duck_lore dwarf_lore elf_lore even_more_military_toys firewalkers fishing_boats fishing_nets floating_houses food_industry forest_lore frigates game_laws grassland_lore healing horseriding human_lore iron irrigation jewellery knights land_lore magic_village metallurgy military_toys mining mining_tools mission mithril moral more_military_toys mountain_lore orc_lore pest protect_inventions protection province_plunder roads sea_lore secret_service ships silviculture sky_worms steel stone_building teleport terraces town_plunder towns trade trade_ships training trolls worm_building worm_lore worms

Descriptions of the technologies.

- armour

Armour will make our soldiers much more protected.

Armour costs 20 gold to develop and can be developed when iron is possessed.

- bows

Bows: This technology will make it possible for all our soldiers to carry and use bows. Normal soldiers are bad archers, but you may create archers with the command:

place_archers (province number) (directions)

Archers are four times better archers than other soldiers, but they cost 2 gold more to build and they are half as strong in melee.

Bows cost 20 to develop and can always be developed.

- castles

Castles: This will make it possible to build stone_castles in land provinces for 4 gold, in mountains for 5 gold, in grassland for 6 gold and in forest for 8 gold. With the technology floating_houses it is possible to build a castle on water and it will then cost 12 gold. To build a castle just give the order:

place_castle (province number)

The castle will automatically get its own army and when this army dies the stone_castle also will be destroyed.

Note that a castle in a forest will be built for only 4 gold if the technology worms is discovered.

Castles cost 20 to develop and can always be developed.

- catapults

Catapults - This technology makes it possible to build catapults-armies. They cost 4 gold more than normal armies, but they are 10 times as strong as archers while firing at castles. Otherwise they are as normal archers. Place them with the order:

place_catapults (province number) (directions)

(cost 4 more gold than ordinary armies)

Catapults cost 50 to develop and can be developed shortly after more_military_toys is possessed.

- churches

Churches: A church may be built in any province and costs 2 gold to build. It will make the people calm and no uprisings will occur in a province with a church. Rebels already present in the province will not stop their rebellion. To build a church just give the command:

build_church (province number)

Churches are invented with 1 percent chance for every village if mission is possessed.

- crime

Crime: A wonderful way for the common people to increase there income. This technology can not be given to other kingdoms. Ducks and orcs steal very much, elves do not steal and dwarves steal very little.

Crime is invented with a 3.3 percent * (every plunder + armies villages and towns removed) risk. This risk is doubled for orc kingdoms and zero for elf kingdoms.

- death_training

The soc death_training makes it possible to train our armies by letting the soldiers fight each other as if they were in a real battle. Just give the order:

death_train (army number) (cost no gold)

And a bloody training will take place. It is 20 % chance the army will lose half of its ERF due to loss of soldiers (not below 2 ERF though) and 10 % chance the army will be totally destroyed. The army can not be moved the same turn it is trained, but plunder can be a part of the training. It is trained in the same moment this order is given. An army can be trained as much as you like, but only warrior kingdoms may ever use this training method. If you want to death_train an army the same turn as you place it just write "death_train" or "dt" after your place order instead of, or before, directions.

Death_training is invented with 2.5 percent * every army placed during the turn. Non-normal armies counts as two armies. Only warrior kingdoms can invent death_training.

- diburn

Diburn: Only mage kingdoms can use this spell and it can be used like this:
    diburn (province number) (province number)
Of course the mages can not use the burn ritual or do anything else the same turn as they use diburn.

Diburn can be developed by mage kingdoms for 160 gold. It can not be given away to another kingdom.

- duck_lore

Duck_lore makes it possible to use the order:
    duck_populate (province number)
It costs 4 gold to populate a province with ducks. It does not matter if another race already lives in the province or if there is a village in it. Any plague in the province will disappear.

Duck_lore can be developed by your leaders after a demand from the ducks in your kingdom. This demand occurs with 1/6000 chance per province they populate.

- dwarf_lore

Dwarf_lore makes it possible to use the order:
    dwarf_populate (province number)
It costs 6 gold to populate a province with dwarves. It does not matter if another race already lives in the province or if there is a village in it. Any plague in the province will disappear.

Dwarf_lore can be developed by your leaders after a demand from the dwarves in your kingdom. This demand occurs with 1/6000 chance per province they populate.

- elf_lore

Elf_lore makes it possible to use the order:
    elf_populate (province number)
It costs 6 gold to populate a province with elves. It does not matter if another race already lives in the province or if there is a village in it. Any plague in the province will disappear.

Elf_lore can be developed by your leaders after a demand from the elves in your kingdom. This demand occurs with 1/6000 chance per province they populate.

- even_more_military_toys

Even_more_military_toys: This technology will make it possible to develop even more military equipment.

Even_more_military_toys cost 160 gold to develop and requires more_military_toys. There is however only a 0.25 * every army placed during the turn (Non-normal armies counts as two armies) percent chance that this development will be possible.

- firewalkers

Firewalkers - Soldiers of heat. This technology makes it possible to place armies of firewalkers. These armies only have 1/ERF risk of dying in a burn attack but cost 2 gold more to place. Place them with:

place_firewalkers (province number) (directions)

Firewalkers cost 20 gold to develop and requires military_toys. There is however only a 2.5 * every army placed during the turn (Non-normal armies counts as two armies) percent chance that this development will be possible.

- fishing_boats

Fishing boats - This technology makes it possible to build the structure "fishing_boats" which can be built in any water province. To build fishing boats in a province give the order:

build_fishing_boats (province number) (costs 4 gold)

The fishing boats give a nearby town 3 extra food. The fishing_boats can not be moved to another province.

Fishing_boats costs 10 gold to be developed and can be developed shortly after sea_lore and ships are possessed.

- fishing_nets

Fishing_nets - this will make all your kingdoms' sea provinces yield one more food to a nearby town and two more gold as income from provinces.

Fishing_nets are invented by people in every sea province with a 6 % chance each turn.

- floating_houses

The technology "floating_houses" allows us to build castles, villages and towns in sea provinces.

Floating_houses are always possessed by ducks. It is always given to a kingdom that rule a floating village. It can not be developed otherwise.

- food_industry

Food_industry - This technology increases the food production in towns with already high food production. The production becomes max(production, 10+(production-10)*2).

Food_industry can be developed shortly after grassland_lore is discovered and it costs 20 gold to develop.

- forest_lore

Forest_lore - The knowledge about the forest. This technology will make it possible to develop the technology silviculture. Just give the order:

develop_silviculture (costs 10 gold)

and we will be able to increase our lumber production by building lumber_production units.

Forest_lore is invented with 0.17 % chance for every forest province in the kingdom.

- frigates

Frigates - War ships with catapults. Frigates are four times as strong as normal ships and equipped with all kinds of toys. They cost 18 gold more than normal armies and are placed with:

place_frigate (province number) (directions)

Frigates can be developed for 60 gold shortly after even_more_military_toys, ships and catapults are possessed.

- game_laws

Game_laws - Laws that make a controlled hunting possible and therefore 1 extra unit of food will be produced in every land province.

Game_laws can be developed by your leaders (it costs nothing) shortly after land_lore is possessed.

- grassland_lore

Grassland_lore - The knowledge of the grasslands.

Grassland_lore is invented with 0.17 % chance for every grassland province in the kingdom.

- healing

Healing - The technology to heal sick people. If your priests are given the order

heal (province number)

they will heal all sick ones in the province. The province does not have to be nearby or ruled by you and even enemies are healed. The priest can not do anything else the same turn they heal.

Healing can be developed by priest kingdoms' leaders shortly after the discovery. The chance to discover the technology is 0.2 % per plague province and 0.6 % per sick army.

- horseriding

Horseriding: This will make it possible to build stables. Just give the order:

build_stable (province number)

and a stable will be built in that province. A stable costs 2 gold to build and 1 gold to support each turn.

When you have built a stable you may place a cavalry (only one cavalry per turn) in that province with the command:

place_cavalry (province number)

A cavalry cost twice as much to build as an ordinary army and twice a much to support (4 gold per turn in friendly land and 5 gold (4 for orcs) in enemy

land). The cavalry is great in grassland provinces, strong in land provinces and rather strong in mountains and forest.

If you want to remove a stable just give the order:

remove_stable (province number)

Horseriding is invented with 1 % chance for every grassland province in the kingdom. It is also invented if there is a stable in the kingdom.

- human_lore

Human_lore makes it possible to use the order:

human_populate (province number)

It costs 6 gold to populate a province with humans. It does not matter if another race already lives in the province or if there is a village in it. Any plague in the province will disappear.

Human_lore can be developed by your leaders after a demand from the humans in your kingdom. This demand occurs with 1/6000 chance per province they populate.

- iron

Iron, the knowledge of extracting and using iron. This will make all our soldiers better equipped and 50 % better in combat. But there are many more things to discover in this field.

This technology makes it possible to give the orders:

develop_armour (costs 20 gold)

develop_mining (costs 20 gold)

develop_steel (costs 20 gold)

develop_metallurgy (costs 200 gold)

And we will develop the new tech.

Iron can be discovered when mountain_lore is possessed with 0.2 % per mountain province owned by the kingdom.

- irrigation

Irrigation: This will make it possible to build irrigation in land and grassland provinces for 4 gold. To build irrigation in a province just give the order:

build_irrigation (province number)

The irrigation will give a nearby town 4 extra food if a grassland is irrigated and 1 extra food in other cases.

Irrigation costs 20 to develop and can always be developed.

- jewellery

Jewellery: With this technology every town in the kingdom will try to build one (and only one) unit of jewellery out of one ore, one timber and one spec. The jewellery are then sold for 3 gold. This is done by the mayor and is nothing for you to worry about.

Jewellery cost 20 gold to develop and can be developed shortly after metallurgy, trade and towns are possessed.

- knights

Knights: This technology makes it possible to build knights. Just give the order:

  place_knights (province number) (directions)

To place knights, there has to be a stable in the province. Knights are cavalry equipped with heavy weapons and armour of mithril. They are like cavalry except that they cost twice as much as your normal armies plus 12 gold and they are much stronger in battle.

Knights cost 60 gold to develop and can be developed shortly after even_more_military_toys, horseriding, churches and mithril are possessed.

- land_lore

Land_lore - The knowledge about the mixed land. This technology will make it possible to develop the technology game_laws. Just give the order:

  develop_game_laws

and 1 extra unit of food will be produced in every land province. The laws are developed by your leaders who can not do anything else while they are developing.

Land_lore is invented with 0.17 % chance for every land province in the kingdom.

- magic_village

Magic_village: A ritual for kingdoms ruled by mages only, that allows magic village building. If you give the order:

  magic_village (province number)

your mages will build a village. It does not cost any gold, but you can not use your mages for something else during the turn a magic_village is being built and the village can only be built in your own province.

Magic_village can always be developed by mage kingdoms' leaders.

- metallurgy

Metallurgy - the secrets of metals. After a while this technology will make it possible for our kingdom to develop technologies like mithril, jewellery and mining_tools.

Metallurgy can be developed when iron is possessed and it costs 200 gold.

- military_toys

Military_toys: This technology will make it possible to develop many kinds of new military equipment.

Military_toys cost 30 gold to develop. There is however only a 1 * every army placed during the turn (Non-normal armies counts as two armies) percent chance that this development will be possible.

- mining

The art of building mines!

  Just give the order:

  build_mine (province_number)

and you will have a mine in that province. One mine gives you between one and eight gold each turn depending on the resources in the province and, if you

have a town near the mine, it will also generate 1-5 ore. A mine costs 4 gold
to build. Mines can be built in all non-water provinces, but it is easiest to find
a mine in mountains, then land, grassland and hardest in forest. And you can
only build one mine per province, but build_mine can also be used to upgrade
a mine. This costs just as much as building a new one and fails if the new mine
is less good.

Mining can be developed for 20 gold when iron is possessed.

- mining_tools

Mining_tools: This is the technology to build mining_tools that will double the
ore production in mines.

Mining_tools can be developed for 30 gold when mining and metallurgy are
possessed

- mission

Mission, the knowledge of spreading the word of god.

Just give the order:

mission

and your priests will preach the Word to all provinces no-one owns near our
kingdom and make these provinces ours, but rebel armies in these provinces will
continue fight us. Of course the priests can not heal any killed soldiers while
they are preaching. If two or more kingdoms do missions in the same province,
the province will still be unowned. Only 4 provinces or less can be subjected
to mission from your kingdom. It will be 4 random provinces. Kingdoms not
ruled by priests may never preach!

Mission can always be developed by priest kingdoms' leaders.

- mithril

Mithril - the metal of the gods. This technology makes it possible to build simple
things in mithril. Even though much of an armour can not be built in mithril,
the mithril plates will be very efficient and mithril swords are unbreakable. But
mithril is very expensive. With this technology the army type mithril_warriors
may by built. Just give the order:

place_mithril (province number)

and you will have a five times stronger but also 10 gold more expensive army.
Unfortunately the mithril armour does not protect the soldiers from heat...

Mithril can be developed for 40 gold shortly after steel, armour and metal-
lurgy is possessed

- moral

Moral: If you give the command:

moral (army number)

this army will have 2 extra ERF during this turn and all other armies 1 extra
ERF, but if you train new armies the same turn they will be less well trained.
The army that you try to improve the moral of can not be newly built. Only
warrior kingdoms can use moral.

Moral can always be developed by warrior kingdoms' leaders.

- more_military_toys

More_military_toys: This technology will make it possible to develop more military equipment.

More_military_toys cost 60 gold to develop and requires military_toys. There is however only a 0.5 * every army placed during the turn (Non-normal armies counts as two armies) percent chance that this development will be possible.

- mountain_lore

Mountain_lore - The knowledge of the mountains.

Mountain_lore is invented with 0.17 % chance for every mountain province in the kingdom.

- orc_lore

Orc_lore makes it possible to use the order:

orc_populate (province number)

It costs 4 gold to populate a province with orcs. It does not matter if another race already lives in the province or if there is a village in it. Any plague in the province will disappear.

Orc_lore can be developed by your leaders after a demand from the orcs in your kingdom. This demand occurs with 1/6000 chance per province they populate.

- pest

Pestilence: The way of the devil.

To spread pestilence give the order:

pest (province number)

and your priests will try to bring a plague to that province. The plague will appear just as if it was a natural plague. Only priest kingdoms may use pest and the priests can not heal any army while they are wishing for pestilence.

Pest can always be developed by priest kingdoms' leaders.

- protect_inventions

Protect inventions: This will make it more difficult for our enemies to steal our inventions.

Protect_inventions can always be developed by any kingdom´s leaders.

- protection

Protection - This technology allows you to send you leaders to a province and they will protect it from burn and rebellions. This is done by giving the command:

protect (province number)

If there already are rebels in the province they will vanish. Of course this will fail sometimes and your leaders can not be used for something else the same turn. You can only protect your own kingdom's provinces.

Protection can always be developed by any kingdoms' leaders at no cost.

- province_plunder

Province_plunder, a wonderful new way to increase the income!

This discovery makes it possible for you to give the order:

plunder (army number)

The province will then become unpopulated and all villages, stables and warg_farms will be destroyed.

This gives you 3 gold (if the province is populated!) and one gold extra for villages, stables and wargfarms. Town guards can not plunder because they are not real big armies when it comes to plundering. It is not possible to plunder a province if there are enemy armies in it. The plunder take place directly after you have given the order and the army is then able to move in the same turn. If you plunder your subjects may invent crime. If you give ALL as army number, all your armies will plunder but they will not plunder villages and farms unless you order them specificly.

Province_plunder is invented by orc kingdoms that have less than -4 gold.

- roads

Roads: To build roads in a province you just give the order "build_roads (province number)".

The roads cost 1 gold to build and they allow our armies to move one time before the other armies if the army march from a friendly province with roads to an other friendly province with roads. Roads can not be built on water.

Roads are given to kingdoms that has roads in their land. This often happens when the first town is built.

- sea_lore

Sea_lore - The knowledge of the sea. This will make it possible to discover new technologies.

Sea_lore is invented with 0.17 % chance for every sea province in the kingdom.

- secret_service

Secret_service - The trenchcoat-guys who find the rebel leaders and interrogate and torture them. With this soc there will only be half as much rebellions in your kingdom. There is also a 50 % chance that any crime in the kingdom is eliminated each turn.

Secret_service is discovered with (0.125 * number of rebellions) % chance. After discovery it has to be developed by your leaders.

- ships

The technology ships!

Just give the order:

place_ship province_number (directions)

and you will have a great ship in that province. Unfortunately must the province you build the ship in be a land or a forest province.

Ships cost 5 gold more than ordinary armies to build and can only move across water. On the other hand they are four times as strong and they move twice as fast.

Ships cost 20 to develop and can always be developed.

- silviculture

Silviculture - Makes it possible to build lumber_production in forest or land provinces. A lumber_production is built with the command:

build_lumber_production (province number) (costs 5 gold)

Lumber_production costs 1 gold to run but gives a nearby town 4 timber in forest and 1 in mixed land. It can be removed with

remove_lumber_production (province number)

Silviculture can be developed when forest_lore is possessed and it costs 10 gold.

- sky_worms

Sky_worms - the discovery that makes it possible to develop the technology worms.

Sky_worms are social worms of the size of an anaconda and they build large "trees", in which they grow plants and irrigate them. This knowledge makes it possible to give the order:

develop_worms

(It will cost 10 gold!)

This will make it possible for us to build impregnable castles where there are sky_worms.

Sky_worms are possessed by elven kingdoms and elf_lore makes other kingdoms discover it.

- steel

Steel will make our weapons and armours better.

Steel can be developed when iron is possessed and it costs 20 gold to develop.

- stone_building

Stone_building: This technology will turn your towns into towns of stone. A town made of stone is more resistant to natural and magical fire.

Stone_building can be developed for 20 gold shortly after (mining, castles and steel) or (roads, towns and churches) are possessed.

- teleport

Teleport: A ritual for kingdoms ruled by mages only, that can move one of our armies to a place in our kingdom. The order:

teleport (army number or name) (province number)

will teleport the army to that province. Your mages can not do anything else the same turn as they are teleporting.

Teleport can always be developed by mage kingdoms' leaders and costs 10 gold and the use of your leaders to develop.

- terraces

Terraces - The technology to build irrigation in mountains. With this technology the order "build_irrigation" can be used to build irrigation in mountains and this increases the raw material output to a nearby town with 1 food.

Terraces can be developed for 15 gold shortly after irrigation and mountain_lore are possessed.

- town_plunder

Town_plunder - The methods of plunders towns. Just use the order:

town_plunder (army number)

and the town in the province will be plundered and gone. This gives 1/6 gold for each raw material in the town's stock, but not more than 3 gold. The town_guard will also be removed.

Town_plunder is invented with 25 % chance every time an army plunders outside a town. Orc and warrior kingdoms have 50 % chance and orc warrior kingdoms have 100 % chance.

- towns

Towns: A town generates extra gold each turn. Towns can only be built on non-water provinces if your kingdom does not possess the technology floating_houses. If you have villages, warg_farms, stables or roads in the neighbouring provinces they also give 1/6 extra gold each turn due to the trade they generate in the city. A town becomes richer and bigger if it is built near provinces that give all kind of resources. When you build a city it will stop all towns in the future to use the friendly provinces around it.

To build a town you just give the command:

build_town (province number) (town name)

And it costs 10 gold. A town can only be built in a province with a village. Only English letters and _ (underscore) can be used in the town name.

A town also has a town guard which is an immobile army.

To change which town a province supplies, give the order:

supply (town name or province number) from (province number)

This costs nothing. The default is that a town is supported by (in order) its own province (regarless of owner), a province that supported the town last turn and is still friendly to the town, a province belonging to the same kingdom, a province belonging to a allied kingdom. If many provinces can be choosen in the same way, a random of them is choosen. If the province around the town is out of control, the town is still supported by other provinces, but can not use this support.

Towns are invented with 50 % for every village built. Magically built villages gives 10 % chance, and most building and development projects give a good chance.

- trade

Trade - A great way to increase town income. With this technology you can use the order

export (amount) (type of raw material) (town1) (town2)

This will move (amount) raw material of the type (type of raw material) from the warehouse in (town1) to (town2). The towns can either be province numbers or town names. Example of order:

export 3 food from 123 to 128

("from" and "to" can be added if you want to) The towns must be within 5 provinces away from each other and there have to be roads or water between them. But the export is not without risk. About 1/6 of the cargo will be lost

due to bandits, accidents and other things. Tradegoods however will never be lost.

Trade is invented by ducks in a province or a town with 0.2 % chance.

- trade_ships

The tech trade_ships: Trade_ships will make all our sea provinces return one extra unit of tradegoods to a nearby town.

Trade_ships cost 10 gold to develop and can be developed shortly after (trade or floating_houses) and ships are possessed.

- training

The soc training makes it possible to train our armies with the order:

train (army number) (cost 1 gold)

The army can not be moved the same turn it is trained, but plunder can be a part of the training. It is trained in the same moment this order is given. An army can not be trained to more than 5 ERF if it belongs to a warrior kingdom and 2 ERF else. If you want to train an army the same turn as you place it just write "train" or "t" after your place order instead of, or before, directions.

Training is invented with 2.5 percent * every army placed during the turn and only when military_toys are possessed. Non-normal armies are counted as two armies.

- trolls

Trolls - The technology for using trolls in combat. Trolls are large, dumb and violent creatures that live in all orc-populated provinces that are not sea or grassland provinces. Trolls may be placed with the order:

place_trolls (province number) (directions)

(costs twice as much as ordinary armies)

Trolls will never enter a grassland or sea province. Also the trolls have to be placed in a province populated by orcs and they have no use of weapons of iron or steal (They kill everything they hit anyway!), but they can with a little trouble be dressed in armour. Trolls are 24 times stronger that ordinary armies, but there are some problems with a troll army. Very often they will not obey the orders they are given and sometimes if they have no plunder to spend their time with, they will become rebels. And trolls always plunder the province the are in and always eat the plunder by themselves without giving anything to the Crown. Trolls cost as much as ordinary armies to maintain. No known plague has any effect on trolls.

Trolls can be developed by your leaders when they have been discovered. They can only be discovered when military_toys are possessed and only with 0.5 % chance for each orc populated province in the kingdom that is not grassland or water.

- worm_building

Worm_building: This technology will make it possible to make timber with the help of sky_worms. If you give the order:

build_worm_factory (province number) (costs 4 gold)

We will build a worm_factory which will generate 4 timber to a nearby town if it is a forest province and 3 timber if it is a non-water province near water. In other provinces a worm_factory can not be built. A worm_factory costs 1 gold to maintain each turn. You may also want to use the command:

remove_worm_factory (province number)

Worm_building costs 20 gold to develop and can be developed shortly after worm_lore is possessed.

- worm_lore

Worm_lore: This technology makes our sky_castles in forests 50 % better.

Worm_lore is invented with 6 % chance for every sky_castle built with worms the kingdom owns.

- worms

The controlling of the sky_worms!

Just give the order:

place_castle (province_number)

and you will have a castle with its own army in that province. The castles can of course not move but they have great strength and cost 4 gold to build. The sky_castles can only be built in forest provinces controlled by our kingdom.

Worms can be developed for 10 gold when sky_worms are possessed.

9.0 About the map and the terrains

The map is built up with hexagonal provinces. They form a rectangular map with edges that can not be crossed.

The size of the map

In the first campaign the map was 20 * 20 provinces and in the November-campaign it is 30 wide and 20 provinces high.

The terrains

- Forest: If populated by elves a forest province gives double income. A forest gives a nearby town 1 timber (and, if populated by elves, 1 extra food). If the nearby town is populated by orcs it can be fed with 1 extra food from the forest.

- Land: Mixed terrain. It gives a nearby town 1 spec (special stuff). If the nearby town is populated by orcs it can be fed with 1 extra food also.

- Mountain: Only gives income if it is populated by dwarves. It is very slow to move in the mountains. It gives a nearby town 1 ore (2 ore if there are dwarves in the province).

- Grassland: If populated by humans it gives double income. A nearby town gets 1 food and one food extra if there are humans in the province.

- Water: This is some sort of sea or lake. All armies can move on water as on any other terrain thanks to small boats. Without fishing_nets or ducks the water do not yield any income. Ducks in the province and/or fishing_nets increase the income with 2 gold each (That is 0, 2 or 4 gold). Gives one food to nearby town if it populated by ducks and/or one food if the technology fishing_nets is possessed by your kingdom.

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10.0 The races and type of leaders

Here are all humanoid races and some special creatures described. The different types of leaders your kingdom can have and the influences they have are also explained.

10.1 Favourite terrain

Every race has one favourite terrain. Orcs like mixed terrain (land), humans like grassland, ducks like water, dwarves like mountains and elves like the forest. If a province is populated by the correct race it gives extra income (See 9.1 The terrains), except for orcs who never like to give anyone extra income.

Armies of different races also fight better in their favourite terrain (See 14.2 War tables).

The races also have various skills in using some technologies. Dwarves make better swords and armours, elves becomes better archers, humans ride better in grasslands, elves better in forest and orcs have less troubles with wargs.

10.2 Ducks

The ducks belongs to an angry, annoying and very greedy species. Their greatest goal in life seems to be to trade every piece of junk they stumble on for another piece of junk. This often makes ducks rich and arrogant, even if they are terrible craftsmen and have a lack of patience. They treat all races alike and always thinks in terms of profit. They quickly forget treasons, especially if they are paid to do it.

The duck armies have small and timorous soldiers which are easy to club down. But they float like cork and dive like seals and are therefore very deadly opponents at sea.

Plague may strike a duck kingdom hard, but they do not receive the same plagues as other humanoids.

Duck towns produce the double amount of gold for each unit of tradegoods (2/6 gold per unit).

Ducks almost never rebel because it is not good for their business.

10.3 Dwarves

Dwarves are tough, patient and stubborn. They can hardly be seen as a friendly and extrovert race and most dwarves are very greedy. You can however always trust a dwarf. They always keep their promises and never forget a wrong. They treat most of the other races alike except for orcs which they see as untrustworthy.

The dwarven soldiers are hard skinned and have a 85 % chance to survive a burn in mountains and 25 % in other cases. Ordinary dwarven population is not that hard, but they still have a 50 % chance to survive in mountains.

Dwarven kingdoms have an efficient administration thanks to their honesty and they pay 3 gold less for administration. Towns populated by dwarves have greater ore production.

Dwarves rebel very often in an orc kingdom, but very seldom in their own kingdom and seldom in other cases.

10.4 Elves

The elves are unique with their long lives, immunity to illness and often harmonic society. Many elves have skills in magic and therefore all elven armies get a 50% chance of stopping a burn in the province they occupy. If there are many elven armies each of them gets a 50 % chance to stop the burn. If there live elves in a province they also have a 25 % chance of stopping the fire. Elven mages fail more seldom with their rituals.

Thanks to the discipline and lack of corruption elven kingdoms have 5 gold less administration costs.

Towns populated by elves produce 33 % plus 1 more spec, but elves do not feel comfortable in towns and the towns give 33 % less gold than other races' towns.

Elf kingdoms ruled by warriors have armies that start with 3 ERF instead of 2. The elven priests fail more seldom with their rituals.

Elves never rebel in their own kingdom and very often in an orc kingdom.

10.5 Humans

The humans are something like a median race. But they have the biggest bodies among the races and are therefore great warriors in open terrain.

All human populated towns gets extra gold for the most uncommon raw material thanks to the fact that they are great generalists.

Humans do not rebel often or seldom but they rebel a little bit more in non-human kingdoms.

10.6 Orcs

Orcs are mean, brutal and vicious. Orc armies are both very cheap and strong.

Plagues often torment orcs, but they have a great resistance towards them.

Orc kingdoms receive 4 gold if they plunder (instead of 3) and orc armies cost 1 gold less than other kingdoms' armies in enemy land.

Orc towns have a town_guard with at least ERF 5. It is also possible to feed an orc town with junk food from forests and land provinces that other races do not eat.

Orcs always rebel in an elven kingdom, pretty often in their own kingdom and often in other cases.

Kingdoms ruled by orcs can much easier colonize unpopulated provinces (Orcs are maybe not great producers, but they do know how to make orcs very well.).

10.7 Creatures

Here are some of the important creatures described.

- Dragons

Big flying fire breathing reptiles. Extremely intelligent. Fortunately they are very rare and seldom seen.

- Sky worms

This social worm that can be up to 5 meters long and builds large tree-like nests. In these nests they grow plants and even trees and supply them with water. The nests are made of something similar to concrete and they can be very high, 100 meter is very common. With some help of humanoids they can build impressive fortresses and even towns.

- Wargs

These are great wolves, in the same size as lions. They form packs of up to hundred beasts and hunt everything eatable including humanoids. There are no wild wargs in the southern lands where the first Dunk-campaigns take place, but orcs have them in warg_farms.

10.8 Type of leaders

Your kingdom can be ruled by mages, priests or warriors. This can never be changed and it will greatly affect what you can and can not do.

Regardless of what type of leaders you have, they can develop some sort of technologies (called "soces") sometimes. But they can not use their special skills at the same time.

Mages

Mages can perform the order burn. There are also some other rituals that can be developed later in the game.

Priest

Priests can heal one of the armies (The one with highest ERF) that died on land belonging to your kingdom (this is done automagical if they have not done something else the same turn). Priests can also develop and use mission and pest.

Warriors

Kingdoms ruled by warriors automatically place armies with ERF 2 if the leaders are not busy. They can also train their armies more than other kingdoms and have greater chance to discover military_toys and other military technologies.

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11.0 Structures and armies

It is important to understand the difference between Structures and armies, this is explained here.

11.1 Armies

All armies can fight. If something can fight it is an army even if it is called "sky_castle". Therefore you can do
    army_to_village on a sky_castle. If an army is not immobile it can be moved with the order move.

11.2 Structures

Structures can be built in provinces and they can not be moved. Not even if the structure is called "fishing_boats".

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12.0 Diplomacy

Diplomacy is very important. It helps your kingdom to stay out of trouble and can save it in wars. Between each two kingdoms there is a diplomatic status. It can be war, neutral or ally.

Changing diplomatic status

With the orders "friend", "enemy" and "neutral" you can change your relation with other kingdoms.

If two kingdoms have declared each other friends the diplomatic status between them is ally. If one of them has declared enemy, the status is war. Otherwise the status is neutral.

The status can change from anything to anything in one turn. Therefore it may be wise to avoid to ally with kingdoms you do not trust.

War

Your armies will only fight with armies from kingdoms that you are at war with. When your armies are alone in a province that belongs to a kingdom that you are at war with, it will occupy it. All kingdoms are always at war with all rebels.

Neutral

Your armies will not fight neutral kingdoms' armies and they will refuse to enter a province that belongs to a neutral kingdom. If armies from two or more neutral kingdom are in one province, it will be out of control and therefore belong to none.

Ally

Allied armies can occupy a province together. The province is given randomly to one of the occupying armies' kingdom (more armies there = greater chance to get the province). Your armies will not occupy an allied kingdoms' provinces and they can move in high speed in allied land. It is possible to plunder (with the technology province_plunder) a province that belongs to an allied, but that is nothing I recommend...

Armies that are in allied land cost as much as armies in your own land, but if they are attacked they receive no defence bonus.

Provinces can only be given to allies.

13.0 Pestilence and other cosy things

Plagues often torment the mortal races. Sometimes pestilence will be your worst enemy. And that is not enough, many other disasters will bring havoc to your kingdom.

13.1 Pestilence

A plague is described by two numbers. The first is the mortality of the plague and the second is how contagious it is. Very deadly plagues only wipe out the population in the province they appear in, but very contagious and not so deadly plagues may be a disaster.

To stop plagues you can use burn or plunder or just wait it out. Plagues are seldom spread between different races and never spread between ducks and other races.

Except for that, plagues are spread between provinces, between provinces and armies and between provinces and towns. If a province population is killed, all villages in the province also disappear. If a town is wiped out, its town_guard also vanishs.

Provinces with plague do not pay any taxes and sick armies fight only with 1/8 of their normal strength.

The races have different tolerance against plagues, see 10.0 The races and type of leaders.

13.2 Other trouble

Structures that you build can often suddenly go into pieces. Most common are fires that obliterate an entire town, but irrigations, roads and mines also become unusable sometimes.

14.0 Tables and formulas

In this chapter you can find all sorts of formulas and tables.

14.1 Economy

All tables regarding economy are presented here.

Cost of administration

inc.	adm.	inc.	adm.	inc.	adm.	inc.	adm.	inc.	adm.
0 – 0		30 – 14		60 – 32		90 – 53		120 – 76	
1 – 0		31 – 14		61 – 33		91 – 54		121 – 76	
2 – 0		32 – 15		62 – 34		92 – 55		122 – 77	
3 – 0		33 – 16		63 – 34		93 – 55		123 – 78	
4 – 0		34 – 17		64 – 35		94 – 56		124 – 79	
5 – 0		35 – 17		65 – 35		95 – 57		125 – 79	
6 – 1		36 – 18		66 – 36		96 – 58		126 – 80	
7 – 1		37 – 18		67 – 37		97 – 58		127 – 81	
8 – 2		38 – 19		68 – 38		98 – 59		128 – 82	
9 – 2		39 – 19		69 – 38		99 – 60		129 – 82	
10 – 3		40 – 20		70 – 39		100 – 61		130 – 83	
11 – 3		41 – 20		71 – 39		101 – 61		131 – 84	
12 – 4		42 – 21		72 – 40		102 – 62		132 – 85	
13 – 4		43 – 22		73 – 41		103 – 63		133 – 85	
14 – 5		44 – 23		74 – 42		104 – 64		134 – 86	
15 – 5		45 – 23		75 – 42		105 – 64		135 – 87	
16 – 6		46 – 24		76 – 43		106 – 65		136 – 88	
17 – 6		47 – 24		77 – 44		107 – 66		137 – 88	
18 – 7		48 – 25		78 – 45		108 – 67		138 – 89	
19 – 7		49 – 25		79 – 45		109 – 67		139 – 90	
20 – 8		50 – 26		80 – 46		110 – 68		140 – 91	
21 – 8		51 – 26		81 – 46		111 – 69		141 – 91	
22 – 9		52 – 27		82 – 47		112 – 70		142 – 92	
23 – 10		53 – 28		83 – 48		113 – 70		143 – 93	
24 – 11		54 – 29		84 – 49		114 – 71		144 – 94	
25 – 11		55 – 29		85 – 49		115 – 72		145 – 94	
26 – 12		56 – 30		86 – 50		116 – 73		146 – 95	
27 – 12		57 – 30		87 – 51		117 – 73		147 – 96	
28 – 13		58 – 31		88 – 52		118 – 74		148 – 97	
29 – 13		59 – 31		89 – 52		119 – 75		149 – 97	
30 – 14		60 – 32		90 – 53		120 – 76		150 – 98	
31 – 14		61 – 33		91 – 54		121 – 76		151 – 99	
32 – 15		62 – 34		92 – 55		122 – 77		152 – 100	
33 – 16		63 – 34		93 – 55		123 – 78		153 – 100	
34 – 17		64 – 35		94 – 56		124 – 79		154 – 101	
35 – 17		65 – 35		95 – 57		125 – 79		155 – 102	
36 – 18		66 – 36		96 – 58		126 – 80		156 – 103	
37 – 18		67 – 37		97 – 58		127 – 81		157 – 103	
38 – 19		68 – 38		98 – 59		128 – 82		158 – 104	

```
  39 - 19     69 - 38     99 - 60     129 - 82     159 - 105
```

Insert your income from provinces and mines minus costs for warg_farms and stables as inc. Then you see how much your administration will cost. Elven and dwarven kingdoms pay 5 and 3 gold less than the table shows respectively.

Crime

The cost for crime is not lowering the administrationcost.

```
Race:      How much is stolen from the Crown:
Elf        Nothing.
Duck       Random(income from provinces/4)
Dwarf      75 % chance for: Random(income from provinces/4)/2
           25 % chance for: Nothing
Human      Random(income from provinces/4)/2
Orc        Random(income from provinces/4)

(Random is a function that returns a value between 0
 and its argument - 1)
```

Chance to find a mine

```
terrain:   Chance to find a mine
forest     0.183333
grassland  0.366667
land       0.600000
mountain   0.843750
```

How much income will a mine generate?

```
Mine type:   Chance*  Income:  Ore production:
poor_mine     20 %      1         1
small_mine    40 %      2         2
great_mine    30 %      4         3
huge_mine     10 %      8         5

*) change: Chance that the mine will be of that type.

Note: This income will make the administration costs higher.
```

Income from towns

First duck, dwarven and elven towns produce some extra raw materials. Duck towns produce the double amount of tradegoods (the income from villages, roads, warg_farms and stables), dwarven towns produce 3*(normal ore)/2+1 ore and Elven towns produce 4*(normal spec)/3+1 spec (rounded downward).

A duck, dwarven or orcish town then gives the following income:
(A+B*2+C*4+D*8+T)/6 gold

Where A is the most common raw material, B the second most common and so on. T is the number of villages, roads, warg_farms and stables near the

town (This is reported as "tradegoods" in the report. Tradegoods is not a raw material!).

For human towns:

(A+B*2+C*4+D*12+T)/6 gold

And for elven towns: (A+B*2+C*4+D*8+T)/9 gold

A town keeps raw material and tradegoods in a warehouse. It stores the amount of raw material that it produced last turn. This makes it possible to use the export-order.

If the town has more of a raw material or tradegoods in the warehouse than it produces, it will use half of it to produce gold.

Terrain types and their income

```
     Terrain:   Income:                 Raw-material:

f  forest       2                       1 timber
                +2 with elves           +1 food if elves in province
                                        +1 food if orcs in town


g  grassland    2                       1 food
                +2 with humans          +1 food if humans in province


l  land         2                       1 spec,
                                        +1 food if orcs in town


m  mountain     0                       1 ore
                +2 with dwarves         +1 ore if dwarves in province


w  water        0                       Nothing
                +2 with ducks           +1 food with ducks
                +2 with fishing_nets    +1 food with fishing_nets
```

Migration

```
What:                       Chance:
Colonisation                50 %, 83.5 % for orc kingdoms
Kingdom race move in        20 %
Dwarves move into mountains 14 %
Ducks move into water       25 %
Elves move into forest       4 %
Humans move into grassland   7 %
Orcs move into any province  4 %
```

Nothing else happens the same turn as the province is colonised, but the other migrations can happen one time each in the order they are listed in the table.

Cost to maintain armies

```
Type of army:  Where:      Orc Kingdom: Cost:
mounted army   ally land   Yes          4
```

```
mounted army   other land Yes           4
other army     ally land  Yes           2
other army     other land Yes           3

mounted army   ally land  No            4
mounted army   other land No            5
other army     ally land  No            2
other army     other land No            4
```

This is the cost to maintain an army. Read 5.0 Sequence of actions to see when this is done.

14.2 War tables

Here all tables and formulas concerning battle and war are gathered.

Risks of rebellions

```
Province    Your kingdom race:
race:       Ducks  Dwarves Elves Humans Orcs
Ducks       0      0       0     0      0
Dwarves     0.85   0.25    0.85  0.85   50
Elves       5      1.5     0     1.5    50
Humans      1.25   1.25    1.25  0.85   1.25
Orcs        25     25      50    25     5
```

These are the risks in percent that the province will rebel, but villages, armies and secret service can stop the rebellion. A church in the province eliminates the risk of rebellions.

Defence bonus in different terrains

```
Race       Forest Grassland Land Mountain Water
Duck       1      0         0    1        1
Dwarf      1      0         0    2        0
Elf        2      0         0    1        0
Human      1      0         0    1        0
Orc        1      0         0    1        0
```

This bonus is added to the the army's ERF if it does not move when it is attacked. But the army must be in a province controlled by its kingdom.

Race-bonus in different terrains

```
Race       Forest Grassland Land Mountain Water
Duck       0      0         0    0        2
Dwarf      0      0         0    1        0
Elf        1      0         0    0        0
```

```
Human          0      1          0    0          0
Orc            0      0          1    0          0
```

This bonus is always added to an army's ERF. If the army encounter armies during movement it receives bonus according to the province terrain from where if moved.

Dwarves only have half strength at sea and orcs only 2/3 strength. Ducks always have 2/3 strength.

Rebels

Rebels (including trolls) always get the same bonuses as the race which populate their province. If they are in an unpopulated province, the get bonuses as if they belong to an orc kingdom.

Warg_armies' strength relative to normal armies

```
Army Type:    Forest Grassland Land Mountain Water
Warg_army       2      4        4    2         1
```

This number is multiplied with the army strength after the defence and race bonuses are added.

Cavalries' strength relative to normal armies

```
The soldier's race:  Forest Grassland Land Mountain Water
Duck                   2      2        2    1         1
Dwarf                  2      3        3    3         1
Elf                    3      4        3    2         1
Human                  2      6        3    2         1
Orc                    2      4        3    2         1
```

This number is multiplied with the army strength after the defence and race bonuses are added.

Knights' strength relative to normal armies

```
The soldier's race:  Forest Grassland Land Mountain Water
Duck                   8      11       9    7         6
Dwarf                  8      12       9    10        6
Elf                    10     12       10   9         6
Human                  8      16       10   8         6
Orc                    8      12       10   9         6
```

This number is multiplied with the army strength after the defence and race bonuses are added.

Other armies' strength relative to normal armies

```
Army Type       Relative Strength
archers            0.5
```

```
catapults        0.5
Dragon           He-He!
mithril_warriors 5
Ship             4 (At sea)
Ship             1 (On land)
Frigate          16 (At sea)
Frigate          6 (On land)
Sky_castle       6
Stone_castle     6
town_guard       1
trolls           24 (No bonus from "iron")
```

This number is multiplied with the army strength after the defence and race
bonuses are added.

Other modifications

```
Type                          Relative Strength
Race=Duck                      2/3

iron & (!steel) & (race!=dwarf) 3/2
iron & (!steel) & (race=dwarf)  2
iron & steel & (race!=dwarf)    2
iron & steel & (race=dwarf)     5/2
armour & (!steel)               2
armour & steel                  5/2

Sick army                      1/8
Army killed by arrows          1/624
```

This number is multiplied with the army strength after the defence and race
bonuses are added. "!" means that the technology is not possessed. "!=" means
not equal to. Example: A dwarven kingdom with steel, armour and iron gets
the bonus:

    (5/2)*(5/2)

Armies' offensive missile strength

```
With the technology bows:   strength=1/4
Without bows:               strength=1/924
Duck army:                  * 2/3
With the technology iron:   * 5/4

Army Type       Relative Strength
archers          4
catapults        4
Firewalkers      1/2
Frigates         3 (only with bows)
```

```
Ships              3 (only with bows)
Trolls             1/60
Turtle             1/10


Other              1
```

This number is multiplied with the army strength after the defence and race bonuses are added. The table Other modifications above does not apply for missile strength.

Armies' defensive missile strength

```
Type                            Relative Strength

Race=Duck:                          * 1
The technology armour and steel:    * 5/2
The technology armour without steel: * 2
Army with plague:                   * 1/2

firewalkers        2
mithril_warriors   10
Frigates           5 (Both on land and at sea)
Ship               4 (Both on land and at sea)
Sky_castle         6
Stone_castle       6
trolls             6


Other              1
```

The risks that troll armies do something stupid

There is a 25 % chance that a troll army will make up its own orders. There is an equal chance for every direction including standing still.

Rebel trolls will however always move in some direction every turn.

If any of your troll armies has nothing to plunder one turn there is a 12.5 % chance that they become rebel trolls (And they are no nice guys...).

14.3 Tables of disasters

Here are all tables and formulas concerning cosy stuff...

New plagues

```
Race in province:  Chance of new plague each turn
Duck               0.2 %
Dwarf              0.08 %
Elf                0 %
Human              0.25 %
Orc                0.8 %
```

```
Race in town:    Chance of new plague each turn
Duck             0.12 %
Dwarf            0.08 %
Elf              0 %
Human            0.35 %
Orc              0.83 %
```

Types of plagues

Contagious levels:

```
Contagious number: Name:                % risk for this type:
1                  non contagious          20
2                  very little contagious  20
3                  little contagious       15
4                  contagious               9
5                  very contagious          8
6                  very very contagious     5
7                  almost epidemic          5
8                  epidemic                 5
9                  very epidemic            5
12                 truly epidemic           5
20                 doom bringer epidemic    3
```

Mortality levels:

```
Mortality number: Name:                % risk for this type:
1                 cold                    20
2                 influenza               20
3                 severe influenza        15
4                 benign plague            9
5                 plague                   8
6                 severe plague            5
7                 mostly deadly            5
8                 deadly                   5
9                 very deadly              5
12                truly deadly             5
20                doom maker               3
```

The races' resistance against plague

```
Race:      Resistance
Duck       4
Dwarf      10
Elf        Immune
Human      4
Orc        8
```

The risk that a population, army or town dies is (pest mortality)/(pest mortality + Resistance).

Spreading of pestilence

The risk that one province gets the plague from a nearby province is (pest contagious)/(pest contagious + Resistance)

If the plague is coming from a different race the Resistance is three times higher. Between Ducks and other races it is 400 times higher.

Then the plague is spread in the same way from armies to the province they are in, from towns to their provinces, from provinces to armies and from provinces to towns in the same way.

Pestilence is never spread into an unpopulated province.

End of pestilence

The chance that a population, army or town become healthy is sqr((pest mortality)/(pest mortality + Resistance))

If elves move into the province or if the province becomes unpopulated the pestilence always disappears, but only after the plague has had a chance to spread itselves.

The order army_to_village can end (and start!) a plague. Plunder, foo_populate (foo=race) and burn also removes the plague from a province. If another race immigrates into a province the plague disappears too.

Destruction of structures

```
Structure:     Risk to be destroyed each turn:
irrigation     0.25 %
roads          0.5 %
poor_mine      1.7 %
small_mine     0.8 %
great_mine     0.4 %
huge_mine      0.2 %
village        0.4 %
town           0.5 %   (0.38 % with "stone_building")
```

14.4 Tables of magic and priest rituals

Here are some tables about the chance to succeed in different rituals.

Risk to hit wrong province with burn

```
                                Elves:   Other races:
Risk to hit a nearby province:    7.5 %    15 %
Risk to hit a random province:    1.25 %   2.5 %
Chance to hit the chosen province: 91.25 % 82.5 %
```

The chance to gather mages for a burn ritual

```
Number of provinces:  Burn:   Diburn:
  0                     0 %     0 %
  1                     5 %     3 %
  2                    10 %     6 %
  3                    15 %     9 %
  4                    20 %    12 %
  5                    25 %    15 %
  6                    30 %    18 %
  7                    35 %    21 %
  8                    40 %    24 %
  9                    45 %    27 %
 10                    50 %    30 %
 11                    54 %    32 %
 12                    58 %    34 %
 13                    61 %    36 %
 14                    64 %    38 %
 15                    66 %    40 %
 16                    68 %    42 %
 17                    70 %    44 %
 18                    72 %    46 %
 19                    74 %    48 %
 20                    75 %    50 %
 21                    76 %    52 %
 22                    77 %    54 %
 23                    78 %    56 %
 24                    79 %    58 %
 25                    80 %    60 %
 26                    81 %    62 %
 27                    82 %    64 %
 28                    83 %    66 %
 29                    84 %    68 %
 30                    85 %    70 %
...
 40                    90 %    80 %
...
 50                    94 %    85 %
...
 60 and above          97 %    87 %
```

The diburn-chance is for the ability to perform both burnings. Either there will be two or no burnings.

Risk for a priest kingdom to fail to heal an army back to life

If your priest are not given any order, they will try to heal the best army that has died on your land. To understand more read 5.0 Sequence of actions.

```
            Elves:  Other races:
```

```
Risk to fail    7.75%    17.5 %
```

Risk for a kingdom to fail to protect a province

```
              Elves:  Other races:
Risk to fail    7.75%    17.5 %
```

14.5 Miscellaneous tables

Chance to steal a technology

```
Technology          chance to be stolen
armour               1/30
bows                 1/26
churches             1/3
death_training       1/20
diburn               1/60
horseriding          1/6
magic_village        1/50
metallurgy           1/60
mithril              1/60
pest                 1/150
ships                1/40
steel                1/15
training             1/20
trolls               1/40
worm_lore            1/40
worms                1/35

Other                1/10
```

This is the chance to get a technology that you do not possess from a kingdom when you occupy one of its provinces. If the other kingdom possesses the technology "protect_inventions" this chance is divided by 3. If there is no one living in the occupied province no technology is stolen. And if the race in the province is different from the occupying army the chance is divided by 2.

14.6 About the rumours

In the rumours-section of the report, there are some tables. First you may receive a report about the most experienced army in the campaign. The chance to see this rumour is 0.25.

Then there are lists of most income, most provinces and most technologies. The values used here are not the real ones (except for your own kingdom).

Instead (4D25 - 52) % is added to each value. (That is four 25-sided dice minus 54). This value is spreaded to all kingdoms and then another (4D25 - 52) % is added. So the biggest kingdom in the rumours may be only one forth of what the rumour say. But often they are about +-10 % wrong only.

Then there is a list of all alliances. An alliance does not mean that every kingdom in the alliance is allied with all the others. Some of the members may even be at war with eachother. But they are all tied together with alliances somehow.

Example: If England and France are allied, and France and Russia are allied, then England, France and Russia are the same alliance regardless of what England and Russia think of eachother.

The kingdom with the greatest income is called the alliance leaders. NOTE: The alliance leader is always the kingdom with the greatest income and there are no random value added when this is selected. Therefore you can get better information here, than in the Greatest-Income-table.

Then the different alliances are sorted after income. (4D25 - 52) % to this income as in the other tables. The kingdoms that are not alliance leaders are only sorted by their kingdom number.

15.0 Tactics and strategy

Here are some tips regarding how to become a successful Dunk player. Or at least some tips to avoid being an idiot.

About wars

Wars are very expensive in Dunk. It may seem cheap to buy 10 armies as an orc. But then you see that they cost 3 gold each to support and most of them are in provinces which they can not plunder. Therefore it is important to only make war when you have something to gain.

Here are some examples of when war is a very bad idea:

- Attacking dwarves in their mountains. This is especially a bad idea if you are an orc. When you conquer a province, the dwarves will revolt. Then you surely end up with a mountain with no dwarves which gives no income. It is also very slow to march into a mountain province and the dwarves fight well in mountains.

- Attacking elves in forests with sky_castles. They are almost invincible.

- Attacking Ducks at sea. Ducks fight very well at sea.

- Attacking orcs without much backup.

- Attacking a mage kingdom that is in peace and only has a short common border with your kingdom. This may be no problem with protection.

And some examples of when war is a good idea.

- When the elven kingdom next to you kingdom claims some non-forest provinces.

- When some dwarves think that it is a nice idea to camp on the plains.

- When the ducks try to walk on land.

- When you think that the forest/mountain/sea does not belong to anyone other than elves/dwarves/ducks.

- When a kingdom grows too big you have to attack. It might not seem as a good idea, but with some allies this will be no problem.

- When a kingdom is almost history, it might be a good idea to take what is left before someone else does it.

But make sure to end the war quickly. Otherwise you will end up far behind other kingdoms. The evil orc-kingdom may have occupied five of your land-provinces, but if you just defend yourself, they will not continue into the forest or mountain.

About diplomacy

It is not only important to get many friends, but also to handle you enemies in a good way. If you strike them in an "honourable" way, it will be easier to make peace with them and to explain your aggression to your allies.

Try these explanations in your ears:

- The evil orcs have nothing to do on my sea!

- A have to attack them to help my ally who is in trouble.

- It is a weak kingdom so I will eliminate them just because I can.

- I need to expand and this was the only possible choice.

Especially the last explanations says "Afterwards, when I have grown stronger, I will attack you.". This will make even very loyal allies sending some technologies to the attacked kingdom...

Sending technologies to a kingdom that surely will die is often a good idea. This will keep the war's winners busy a little longer. Sometimes even gold may be a good idea. Why not send 20 gold to the poor orc-kingdom and thus creating things that will cost over 60 gold for your enemy-in-the-future to eliminate?

Technologies

Always try get get as many technologies as you can. Even if you have no use of some of them, you can trade them with other kingdoms. Just be aware that the value of technologies vary and the cost to develop a technology is in no way correlated with its value.

Read the description of the technology and set your own price!

16.0 Examples

Here are some examples of things that many players have problems with.

Your first orders

The obvious thing seem to be to just build as many armies as possible and take as much land as they can. But there are other ways...

Grah, the great orc, who rules a rich warrior orc kingdom send in these orders to dunk@xnetz.com

```
campaign 17
begin orders Grah's_Kingdom
>We also have 8 gold to buy armies (max 3 armies) and stuff for.
> ">" means comment.
>Yea! Great!
place 22 e
place 43 e
place 62 e
place 41 w
>Maybe use your warrior leaders to develop a soc or something?
>No way! My armies must start with ERF 2!
end orders runkargurka
          ^^^^^^^^^^^ This is the password!
```

Karth, the orc-mage, send in these orders:

```
campaign 17
begin orders Karth's_Kingdom
>We also have 5 gold to buy armies (max 2 armies) and stuff for.
>5 gold? Damn water and mountains!
>Lets save all gold to be able to build 5 armies next turn.
>Maybe use your mages to burn two provinces with diburn?
develop_magic_village
end orders marmelad
```

Saroghth, the orc-priest, send in these orders:

```
campaign 17
begin orders Saroghth's_Kingdom
>We also have 7 gold to buy armies (max 3 armies) and stuff for.
>Lets show our priests much land for their mission next turn:
place 148 e
>I have plans for the following turns for this army:
place 167 sw w nw
place 127 nw

>Maybe use your priests to mission or develop a soc?
>mission is a must for priests!
mission
end orders peakabow
```

17.0 Dunk etiquette and winning

This chapter explains how you are expected to play Dunk. If you do not follow these advices you will be kicked out.

Winning

As it is now, only one player wins in each campaign. 10 players joining up against the rest and wipe them out and then end the campaign is no fun at all. To support the winning team with your little pathetic kingdom instead of joining the glorious fight of their enemies is **bad boring chicken-play**. No-one will thank you for being loyal to the alliance, it is just boring. Fight to win, there is always a little chance to win as long as there are more than 2 players left! If not, give up and let the remaining kingdoms have fun.

The kingdom who has the biggest net income plus cost for its army is considered winner. That is:

(Gold from towns) + (income from mines and provinces minus structures) - (administration cost)

This means that you do not win thanks to a lot of gold or many provinces. However, there are a few secundary winning possibilities and they are greatest income per province, most provinces, most technologies and greatest towns.

Quiting campaigns

It is always bad to quit campaigns, but sometimes life and other bad things attacks you and you have no other choice. This is how you should do it. This is suggestions in order best-solution-at-top:

- Give your kingdom to someone who is not playing in the campaign. Make sure the one who takes over the kingdom is not a friend of you enemies.

- Just quit and leave the kingdom doing nothing.

- If you and your allied are fighting hard together against a big enemy you may give all your provinces to your allied. This should make the rest of the game look like if you hade continued to play.

- Give away your provinces to the different kingdoms around yours. This is not recommended! It is not fair in any way.

Trades

Only trade *inside* the campaign. Trades involving other campaigns, chocolate or just being friendly is not allowed. Tell the Dunkmaster if anything like this comes up and death will be quick and painful for the sinner.

Being nice

It is OK to be rude and aggressive in you diplomacy with other players if you think that will help your kingdom. But do not become a pain in the ass!

Cracking

It should be obvious, but sometimes players are blind, that it is not OK to try to get Dunk-information by figuring out players passwords or reading files that you should not read. These actions will not only kick you out from Dunk, it can also lead to legal actions, cut off you Internet access and so on. Some examples:

- Reading some files that you have access to, but the other Dunk-player do not think you will look at. Not OK!

- Read an email that was not supposed to be sent to you. It is OK.

- Read headers from emails and use Altavista to see if that player is somehow related to another player. OK.

- Steal another players computer and threaten him to death if you are not given 100 gold. Make a guess...

Helping you allied

It is OK to send in orders for allied players that are away for awhile. But no longer than 4 turns, after that the player should quit.

Friends

Do not ally with all your friends! It is much more fun to ally with unknown people and kick your friends butts.

Many players by one player

One human player is only allowed to be registred as one Dunk-player.

Losing

So all your neighbours attacked you right from start and you did not have a chance? Things like this happen. Do not be angry, at least your death was quick. Try a new campaign and do the same evil thing against someone to make you feel better...

Revenge

It always feels good to support your former enemies with technologies and provinces after your allies have attacked you. Therefore it is allowed. Revenge in another campaign is bad.

18.0 Change-log

This is a change-log for these rules. Newest things at top:

Version 0.35

2001-05-07 LOG: New rules for campaigns with number 20 and above. Orc plunder now gives the same as other races plunder. Town guards can no longer plunder. Older campaigns are as before.

Version 0.34

2001-02-25 LOG: The technology sky_worms can now be discovered by other kingdoms than elven kingdoms if they possess elf_lore. Version 0.33

2000-12-16 LOG: The order move is better described and the move orders *wait* and *unclimb* are added.

Version 0.32

2000-11-9 LOG: The technology fishing_nets now gives 2 extra income from water provinces. It has always been like this, but the rules have been wrong for a while...

Version 0.31

2000-10-14 LOG: More rumours are added to the reports and this is explained in 14.6 About the rumours.

Version 0.30

2000-10-06 LOG: Armies now desert if you do not have any gold. 7.4 Expenditure for armies and 5.0 Sequence of actions are updated.

Some minor language bugs and address-bugs are corrected.

Version 0.29

LOG:

2000-08-30 Dwarves no longer get the technologi iron at start. This was never mentioned in the rules.

Version 0.28

LOG:

2000-04-10 The technology mission now only make it possible to incorpurate 4 provinces. Burn is not always possible, especially for small kingdoms. Give_province occur later in the turn.

Version 0.27

LOG:

2000-04-01 Armies can move at higg speed in allied land and this is written in 5.0 Sequence of actions.

Version 0.26

LOG:

2000-03-21 The chapter Dunk etiquette is added.

Version 0.25

LOG:

2000-03-19 Army_to_village is no longer possible in enemy or allied land.

Version 0.24

LOG:

1999-11-04 The technology teleport is added.

Version 0.23

LOG:

1999-10-01 A few more things about unpopulated provinces and pestilence in 14.3 Tables of disasters. And burn is said to remove pestilence too.

Version 0.22

LOG:

1999-10-01 Cost for crime added in chapter 14.1.

Version 0.21

LOG:

1999-09-25 Every turn and next turn added.

Version 0.20

LOG:

1999-09-01 The techs frigates and knights added.

Some typos fixed.

Version 0.19

LOG:

1999-08-15 The risks that troll armies do something stupid added in 14.2.

Remove army, village and town added in 4.3 Standard orders.

Some other small adjustments.

Version 0.18

LOG:

1999-07-19 A lot of small changes and the chapter 10.8 About the type of leaders added.

Version 0.17

LOG:

1999-05-26 The order develop_protection added.

The modifications for armies killed by arrows added in 14.0.

Version 0.16

LOG:

1999-05-26 The description about income from towns in 14.0 updated.

Plunder all added.

Set_map_email added.

set_ascii added.

Version 0.15

LOG:

1999-05-17 14.2 War tables updated.

Version 0.14

LOG:

1999-03-08 "All missions occur before any provinces are given." Added in 5.0 Sequence of actions.

Version 0.13

LOG:

1999-02-02 Lowered defence-bonuses for all races in forests. And lowered ducks and elven terrain-bonuses.

Version 0.12

LOG:

1998-12-15 Removed everything that has to do with caravans and added the new description of trade.

Version 0.11

LOG:

1998-12-02 Updated the tables for the new lowered values for catastrophes, rebellions and plagues.

1998-12-02 Added some examples and tactical tips.

Version 0.10

LOG:

1998-11-06 The technology protection is added and a table for it in 14.4 Tables of magic and priest rituals.

Version 0.9

LOG:

1998-10-20 write_tech now accepts any technology.

Version 0.8

LOG:

1998-10-20 The risk to fail healing for priests is now described in chapter 14.4.

1998-10-20 The description of how to get all technologies is added in 8.0 Technologies. Links between the technologies are added.

1998-10-19 The description of how to use \ to continue lines is added in Chapter 3.2.

Version 0.7

LOG:

1998-10-02 The order supply is added in the description of the technology towns.

Version 0.6

LOG:

1998-09-30 The table about stealing techs is added in 14.5.

Version 0.5

LOG:

1998-09-30 The order give_tech now accepts "all" as a technology.

1998-09-30 The technology food_industry now gives max(production, 10+(production-10)*2) food.

1998-09-29 The order worldpeace added.

Version 0.4

LOG:

1998-09-18 This change-log is moved to this chapter.

Version 0.3

LOG:

1998-09-16 ass, eas ... in 6.4 added.

1998-09-14 The tech food_industry added.

1998-09-14 3.4 about gif added.

Version 0.2

LOG:

1998-08-31 3.3 How to read your kingdom report added.

Version 0.1

LOG:

1998-08-21

Some new tables added in chapter 14.

1998-08-04

"begin letter"-explanation removed, because it should not be used by any other than Dunkmaster.

Avoid $$$$$$$$$$$$ in letters to Dunk.

Totally rewritten rules and translated into bad English.