Tribal Wars Planner

Content

1 General information

1.1 Version

This document has the version number 1.3 and refers to Tribalwars Planner version 4.7

1.2 Storage location

The current version can be found under the following link:

https://github.com/Kis4m3/Tribalwars-Planner

1.3 License and Copyright

All rights belong to Kis4m3.

The file may be freely used, modified and distributed.

1.4 Change history

Version 1.0: Creation and first release

Version 1.1: Attack planner added

Version 1.2: Added command planner and village/player import

Version 1.3:

- Translation German/ English added
- Added own sheet for the settings
- Tool "Build times wall" added
- Minimum construction time Wall implemented

2 Content of the Tribal War Planner

2.1 Structure

Each tool has its own worksheet. The world settings are always taken from the "Settings" sheet and must be entered there manually.

From left to right are first the General Sheets, then the Tools, and then sheets with basic data used by the Tools.

Cells with a yellow background stand for input cells.

Cells with a brown background are output or sum cells.

Cells with a grey background are used for interim calculations.

2.2 Overview table sheets

2.2.1 Tools

- **Settings**: On this sheet the overall world settings (speed and mine production, and unit speed) can be set. In addition, the conquest system and loot limit can be set here. In addition, you can switch between German and English and update the imported village and player data.
- **Construction Planner**: Optimal expansion of a village can be planned (including troops). But you can also use it to design a balanced account manager template. If you enter the current information of a village (buildings, troops and rests), all further buildings and recruitment (via the percentage utilization of the barracks/stall/workshop) can be planned. -> Good for early game
- **Formatting**: Allows the "Construction Planner" to be exported as a table formatted in DS
- **Farm Planner**: Calculates the raw material production and the number of lcavs needed for the farm
- **Attackplanner_Sendingtime**: Here the sending times of several villages of origin to several target villages for one arrival time can be determined in a matrix. The sending time is colored on the basis of a time frame entered
- **Attackplanner_Traveltime**: Here the transit times from several villages of origin to several target villages can be determined in a matrix. The travel time is colored based on a time frame entered
- **Command Planner**: Lets you plan individual commands and export them for IGMs/ notepad
- **Noble Planner**: Here it is calculated under input of the mines and recruitment buildings, as well as the village type (Off, Dualdeff, Flexdeff), as well as the current and the target AGs, when the Ressources for the storage for the desired AGs are available. -> Good for the Midgame
- **Recruiting Planner**: Simple calculation of construction times and costs of troops depending on the barrack/stall/workshop level.
- **Village planner**: Determination of villagers and points of a village
- **Traveltime Calculator**: Calculation of the transit time, as well as the time of dispatch or arrival and return
- **Bashpoint Calculator**: Here you can calculate how much Offbash or Deffbash there is for the losses of the attacker or defender

- **Tech times**: Here you can see the research times and costs depending on the forging stages
- **Amortization Mines**: Calculate how long it takes for the cost of one level of all mines to be recouped by increasing production.
- **Ram table**: Here you can see the decrease of the rampart steps depending on the ram tech - for explanations see other thread
- **Catapult table**: Here you can see how many building levels are destroyed with how many katas. Condition: All katas survive. This table is tech dependent
- **Catapult table_surviving**: Here you can calculate the number of catapults and determine the destruction.
- **Moral Calculator**: Basically the same as the Moral Calculator in the Simulator - but you can see more information here. Unfortunately there are some rounding errors with a server runtime of less than 125 days
- **Farm Limit**: Here you can simulate the combat power when the farmrule is activated.
- **Simulator old**: A simulator for the old fighting system (without bow!).
- **Build times wall:** Here you can calculate the build times of the wall for the set world speed per level and cumulated for all village headquarter levels and format them as a table.

2.2.2 Data sheets

- **Construction times**: This is where the construction times are stored, which are used in the Construction Planner. These are determined empirically and are therefore subject to rounding errors
- **Construction Costs timber/ clay/ iron**: The costs of the buildings for the Construction Planner are stored here
- **Villagers**: The population of the individual building levels is stored here -> also for the Construction Planner
- **Miscelaneous**: Here are a few factors
- **Unit information**: This is where the construction times, combat forces and costs of the troops are stored (also used in the Construction Planner)
- **DSVillages**: Here the villages of a world are read in and processed by the DS server. To change a world, delete all data from the worksheet, then under Data Connections →→Select Connection Properties →Definition →Edit Query →→Customize the server in the address line Import →OK →close→
- **DSPlayer**: Here the players of a world are read in and processed by the DS server. The query can be adapted analogous to DSDörfer.
- **Translation**: Here the translations between German and English are defined. A change can be made here by clicking a button.

3 Explanation of the tools

3.1 Settings (Settings)

The world settings (world speed and resource speed) must be stored in cells C1 and C2. Cell C3 calculates the total mine production.

The unit speed can be entered in cell C4.

Most of the settings can be found on the page https://deXXX.die-staemme.de/page/settings (XXX stands for the world number).

In cell A7, you can set whether it is a gold coin or a storage world.

In cell B9 you can set how high the booty limit on the server is. In B10 when the player started on the server. The lootable resources (rolling within 24h) are then calculated as follows

$$Lootable\ ressources = loot\ limit * (days\ on\ the\ server + number\ villages)$$

With the buttons "Translate to English" and "Auf Deutsch übersetzen" the whole document can be translated. This may take some time (about 1 minute).

With the buttons "Update Player" and "Update Villages" the player and village data on the worksheet "DSPlayer" and "DSVillages" are updated. This can take several minutes.

To change a world all data must be deleted from the worksheets DSPlayer and DSVillages. Afterwards the appropriate connection can be selected under Data → Connections and the query can be edited under Properties → Definition. Thereby the world name in the link must be adapted. Then close→ Import → OK. Now click the buttons "Update Player" and "Update Villages". Then all data from the new server are in the document and can be used.

3.2 Construction Planner

In cells C7, C8 and C9 the resource boost of the village can be entered (if active). In cells C2 and C3 the recruitment boost of the village can be entered (if active). In cells H2 and H3 the building speed boost of the village can be entered (if active).

In cells J3 to AD3 the building levels can be entered at the start of the calculation. Thus, calculations can also be performed for a village that is already partially developed.

In cells J7 to S7 the troops can be entered at the start of the calculation. These are used to calculate the free farm space.

In cells J11 to L11 the raw materials can be entered at the start of the calculation. If there are already buildings in the loop, it is recommended to calculate all raw materials at the starting point.

The booty limit has already been set under "Settings". The number of current villages can be adjusted in cell H9, if necessary.

The data in row 15 (first cell of the calculation) is filled from the above data.

Exception: In cell N15 the start time must be entered, in cell R to AA16 the recruits must be entered and in cell AS16 the percentage of the prey limit used must be entered.

Special effects (quest rewards, research costs, trading on the market, etc.) can be entered in the columns AT to AV (here costs have a negative sign and revenues have a positive sign).

Functionality:

All resource expenditures and revenues, as well as troop production, are normalized to one hour and then calculated to absolute numbers at the time the building stages are completed.

The construction times are taken from the "Construction Times" sheet and calculated with the main building factor of the current main building level. A minimum construction time is stored for the wall, which can be adjusted in the settings if necessary.

Waiter:

The buildings can be entered in column J from line 15 onwards (in English). These can be selected from a drop-down list or entered directly. All buildings, as well as AGs and gold coins or storages are available.

When a building is entered, the system checks whether the building requirements (columns DX to ER) are met and whether the memory is sufficiently large (column DV). Errors are displayed in the P column. If all conditions are fulfilled, the construction times are loaded from the Construction Times worksheet and calculated for the current main building level. The construction times are empirically determined times. They may therefore contain certain rounding errors of a few seconds.

In the columns R to AA the troop productions can be entered. In doing so, a percentage of the utilization of the recruiting building must be specified by the unit. A building may not be used to more than 100% capacity.
For example, if you want to have a permanent loop in the barracks with Dualdeff, you have to enter about 40% spears and 60% swords to get a balanced number of spears and swords. If you enter 0% spears, 0% swords and 50% axes, this reflects that you produce 30 minutes of axes per hour and have 30 minutes of standstill in the barracks.

The column N indicates when the previous building order is finished. The P column indicates when the building level can start building (when enough resources are available). To do this, the resources at the end of the previous order and the costs of the building are offset against the resource income. The troop costs are not included in this calculation. They are only included when the next building level is completed. The resulting waiting time can be found in column B.

Column I can be used to specify whether it is a normal loop (1-5) or a loop with increased ressi costs (from 6).

Column G indicates how many BH spaces are available including the building under construction.

The H column indicates how many farmplaces are available including a full building loop. Troop loops are not taken into account here!

Column F indicates how much storage space is available from the most critical resource including the building loop. Troops are not included here either. A minus in this case means that the storage capacity is exceeded and is therefore highlighted in red.

Overviews:

In the columns BV to CP you can look up what the current building levels are. In the columns DL to DU the current troops can be looked up.

3.3 Formatting

The formatting is used to insert a created plan as table ingame.

The type of troops (Off/ Deff) can be set.

Imported are the building levels, the start of construction, the duration, the end time, and the troops (axes, lkav and rams for Off, and spears, swords and bows for Deff).

The P column indicates how many brackets ("[") are in the column. The column Q specifies the sum of the brackets.
Only 1000 brackets can be displayed ingame. Accordingly, if there are more than 1000 brackets, the table must be divided into several contributions.

3.4 Farm Planner

The coordinate of the destination village is entered in column B. In columns D to F the mine levels. In the column M the rampart step.

By entering the Own Village in H2 and the units running time (10 min for lcav) in H3, the running time to the village is given in column C.

In column K you can see how many lcavs are needed to empty the village with one attack every hour.

The L column shows how often you can visit the village with the Lkavs farms indicated in M3. In the cell M3, the minimum number of lcavs due to the fake limit (or other reasons) should be given.

In the column N, the speed list script is output. It can be copied and inserted ingame. When you are in the rally point and click on the speed bar script, the corresponding troops and coordinates are inserted and the "Attack" button is pressed.

The script creates itself automatically depending on the rampart level, the mine production and the lava cavs specified in M1 and M3.

3.5 Attack Planner

The settings of the world speed and the unit speed, which are used to calculate the runtimes, must be made on the Settings sheet and are displayed in cells I1-3.

3.5.1 Sending time

The unit with the longest runtime must be entered in cell C1. In cell D2 the arrival time, in cells D3 and D4 the dispatch frame.

The villages of destination are entered in line 6, while the villages of origin are entered in column B. Only the coordinates may be entered here!

Now all combinations are calculated and colored, whether they are possible or not.

3.5.2 Traveltime

The unit with the longest running time must be entered in cell B1. In cells D2 and D3, you can define a time frame in which the runtimes should be.

The villages of destination are entered in line 6, while the villages of origin are entered in column B. Only the coordinates may be entered here!

Now all combinations are calculated and colored, whether they are in time or not.

3.5.3 Command Planner

With the button "Player Update" the players are reloaded from the set world (see "Settings"). However, in order to update the current owner of a village, the villages must be updated.

With the button "Update Villages" the players are reloaded from the set world (see "Settings").

In field A2 the prefix of the country version can be selected from a drop-down list. The link of the country version is then entered in cell C2. The world can be entered in cell B2. The meeting place link is created from these settings.

The command type (Off, Fake, etc.) can be set in column B and is used by the export. Some types are already selectable via the Drop-Down menu. Free entries are possible.

The village of origin must be entered in column C. From this the player and the village ID (column D and E) from the "DSVillages" worksheet will be determined automatically.

The target village is entered in column F. Further information is determined in the same way as the village of origin.

The slowest unit can be entered in column I (best selected from the drop-down menu).

In column M you can select whether the time entered in column N is the arrival time or the departure time. The respective other time is calculated in column O.

In column P you can select whether the planning is intended for a UV account or not. For a UV account the link will be adjusted accordingly.

In column Q you can select whether troops should be automatically inserted. If "YES" is selected here, the corresponding troops must be filled in the columns R to AC.

The link is generated in column AD. If this is clicked directly, the meeting place should open in game. If the login page comes, a registry change must be made so that the link is passed to the browser and does not open the window directly (problem here is the Single-Sign On of DS)

In the AE column, a formatting optimized for IGMs is generated. In the AF column, formatting optimized for the notepad is generated.

Simply copy these cells and paste them into the game.

3.6 Noble Planner

In contrast to the Construction Planner, the Noble Planner considers the entire account and assumes a raw material balance. Included in the calculation are the gold coins as well as the AG costs. If the Construction Planner has been set up for storage, then only the storage costs will be considered.

In columns H to O the villages and village information are entered. There is no automated import yet. Therefore, a semi-automated import (see columns AL to BJ) from the buildings and groups overview can be used for larger village quantities.

In cell B5, you can set the exhaustion of the farm limit (settings for this can be found in the "Settings" sheet, but villages are taken from the Noble Planner). In cell E4 you can set how many AGs are currently in your account. In cell E5 you can set the target number.

In cells B14 to D14 you can set how many raw materials should be put into buildings every hour.

Cells B21 to E21 indicate how long it takes to get the AGs if no troops and no buildings are built.

Cells B23 to E23 indicate how long it takes to reach the target AG number when troops are built in a continuous loop and the buildings entered.

3.7 Recruiting Planner

In cells K2 to K4 the building levels of the recruitment buildings must be entered.

In column C the troops to be built are entered.

The totals are shown in line 12. Here, C12 is the number of farm pitches used, and D12 is the total construction time in the building with the longest construction time. In cells L2 to L4, the construction times are broken down by building.

3.8 Village Planner

Building levels can be entered in column D. A dop-down list prevents the entry of building levels that cannot be built in any world settings. The list accesses the hidden column A.

After entering the world settings in J3 to J7, column E additionally checks whether the building level is available for the entered settings.

In column E the required farmplaces are entered and in column F the resulting points.

Columns M to V contain a few templates that can be copied to column D.

Cell F23 shows the total number of farm places, cell F24 shows the farm places available for troops.

3.9 Traveltime Calculator

The unit and world speed are taken from the "Settings" sheet. From these settings the unit runtimes are calculated. These may be subject to small roundings, which are only visible after a runtime of several fields, but are also available ingame.

In cells B3 and C3 the coordinates of the village of origin are entered, in cells B4 and C4 the coordinates of the destination village.

In cell B4, the runtime-determining unit (= unit in the attack with the longest runtime) must be entered.

Now either the departure time can be entered in cell B12 and the arrival time and the return time can be displayed, or the arrival time can be entered in cell C13 and the departure time and the return time can be displayed.

3.10 Bashpoint Calculator

In cells C8 to N9 the losses of the attacker or defender are entered. In cells O10 and O11 the corresponding off- and deffbash are displayed.

3.11 Tech times

The forging level must be entered in cell E10. Then the respective construction times of the individual research stages are displayed for all research systems (1, 3, 10). The world speed is taken from the sheet "Settings".

Note: Some times are still missing because they could not be determined yet.

3.12 Amortization Mines

The resource speed is taken over in the sheet "Settings".

Column N shows how long it takes to recover the costs of one level of all 3 mines by increasing production.

In column Q a table is generated which can be copied and pasted directly intogame.

3.13 Ram table

In cell H1 the Rammentech is entered and in cell T1 the research system.

Before the battle, the wall is temporarily lowered by calculation. The battle then takes place at this arithmetical level. Only after the battle is Wall permanently lowered.

The following formula must be used:

$$Needed\ Ram = \frac{Number\ downgraded\ levels * 8 * 1{,}09^{Wall\ level\ at\ start}}{Fightpower\ ram}$$

The required pile must be rounded up.

3.13.1 Determining the calculated rampart level in combat

If Rammentech 1 is entered, it can be determined by how many rampart levels the wall temporarily drops for combat.

The maximum reduction of the rampart steps is half of the initial step. This is rounded up or down.
Thus, the wall can be lowered from 20 by 10 to 10. It can be lowered from 19 by 10 to 9.

The minimum number of pile drivers for a maximum temporary reduction for each wall step is marked in bold and can be seen in column Y.

3.13.2 Determining the permanent subsidence of the wall

When calculating the permanent setback, the current Rammench must be set. Then the calculated ramming must be determined.

The result of the struggle is necessary for this. If the attacker wins, the calculated number of rams is calculated from the attacking number of rams + the surviving rams. The result can therefore be a maximum of twice the number of attacking rams.
If the defender wins, the calculated number of rams of the attacking rams
 is equal to the percentage of losses of the defender.
Both cases can be calculated in the AB column.

Based on the calculated number of rams and the rampart level at the beginning of the battle, the number of lowered rampart levels can now be determined.

3.14 Catapult table

In cell H1 the tech level of the catapults is entered and in cell W1 the research system.

This table can be used to determine how many catapults are needed to lower a certain number of building levels. The following formula is used:

$$Needed\ Catapults = \frac{Number\ downgraded\ levels * 300 * 1{,}09^{Building\ level\ at\ start}}{Fightpower\ Catapult}$$

The result must be rounded up. It is assumed here that all katas survive!

3.15 Catapult table_surviving

This table can be used analogous to the Catapult table explained in 3.14

The only difference is that here the calculated catapults are used. These can be calculated in cells AI4 to AI6 and are output in cell AI7.

3.16 Moral Calculator

The Morale Calculator is divided into time-based and non-time-based.

3.16.1 Not time based

In cells B6 and B7 the points of the attacker and the defender must be entered. The morale is then displayed in cell B11.

The defender's required score for morale to be 100%, and the score above which morale is as low as possible, is displayed in cell B8, or B9. The calculation is based on the default setting, which may vary under certain circumstances and can be configured in cells B2 to B4.

3.16.2 Time based

All configurations can be made in cells G2 to G7. The default settings are preset and may differ from world to world.

In the fields G9 and G10 information about the defender must be entered, in cell G11 the score of the attacker. In cell G15 the morale is displayed.

The necessary score of the defender for the morale to be 100%, as well as the score from which the morale is as low as possible, is displayed in cell G12, or G13

3.17 Farm Rule

In cell B1 you must enter how many units each farm level can supply.

In the cells F4 to F13 the troops in the village can be entered. In cell F14, the BH places of the troops in the village are calculated.

In column C the resulting combat strength per BH level is displayed.

The formula for the calculation is as follows:

$$\frac{farmplaces, which\ can\ be\ supplied\ maximally}{Farmplaces\ of\ the\ troops\ in\ the\ village}$$

The combat power and thus the percentage of units lost in combat is thus determined by the ratio of units if the combat power is less than 100% and is the same as for a village that fills all supplyable farmslots exactly and has the same unit ratio.

3.18 Simulator old

The simulator is fully functional for the old combat system, i.e. without bows.

It is not suitable for worlds with arches.

It is not yet mature for worlds with farmrules.

3.19 Build times wall

Here you can calculate the construction time of the wall for the set world speed per stage and cumulated for all HG stages and format it as a table.

Main building levels 10, 15, 20 and 25 are preset. These can be changed as required. You can also simply add new columns (copy and paste the existing ones) and adjust the level.