TRIPLEA MAP GENERATOR MANUAL

The TripleA Map Generator is a free, open source tool to generate hexagon-based, random maps for the free, open source game platform TripleA. It was designed and tested on a Win7 x64 machine using TripleA version 1.6.1.4. It is written using C# and .NET 3.5.

INSTALLATION

TripleA should be installed first.

- Unzip the TripleAMapGeneratorBundle file to a temporary folder.
- Copy the Random_Campaign folder to your TripleA maps folder.
- Copy the TripleAMapGenerator folder to your Program Files folder.
- Create a desktop shortcut to TripleAMapGenerator.exe.

QUICK START

- Launch TripleAMapGenerator.
- Click "Browse".
- Navigate to and select the "Random_Campaign\games" folder under your TripleA maps folder.
- Click "OK".
- Click "Generate Map".
- Launch TripleA.
- Under "Choose Game", select the newly generated map.
- Click "OK".
- Click "Start Local Game".
- Change all but one of the dropdowns to the AI of your choosing (leaving one "Human").
- Click "Play".

USER INTERFACE

A screenshot of the UI with the default settings:

TripleA Map Generator Documentation

Setting	Description
XML Folder Location	The location of the "Random_Campaign\games" folder. Use the "Browse" button to find it. This is where the game XML file will be written.
Game Type	Either Free for All (FFA) or Teams (Alliances)
Width	The map width in hexagons (5 - 20)
Height	The map height in hexagons (5 - 20)
Map Name	The default name starts with "RC_" so all will be grouped together within TripleA. The middle part is a time stamp to prevent over-writing previously generated games.
Number of Players	The number of players (2 - 8)
Number of Teams	If the Game Type is "Teams", enter the number of teams (2 - 4)
Percent Water	Determines the number of water hexagons (0 - 90)
Percent Impassable	Determines the number of impassable hexagons (0 - 50)
Capital Size	A Capital Size greater than one adds additional player owned hexagons adjacent to the capital. Each player capital is automatically a VC. (1 - 7)
Capital Distance	The minimum number of hexagons between player capitals (1 - 19)
Resources Given	The initial resources given to each player (0 - 99)
Per Player Boost	If this amount is greater than zero, then each player, in turn order, gets this number of additional PUs, the last player getting the most resources. This only affects the initial round of play. (0 - 25)
Random Seed	The seed used for the pseudo random number generator. Click "New" to create a new seed.
Percent Neutral Extras	After capital, water, and impassable hexagons are added, any remaining hexagons are considered neutral. By default they get 1 PU and 1 infantry. A number in this text box will change a percentage of them to higher PU territories with additional units. (0 - 99)
Percent Victory Cities	After capital, water, impassable, and neutral extra hexagons, this number represents the percent of remaining neutral hexagons to designate as VC with 5 PU and 5 units. (1 - 10)
Include Additional Units	Adds a few additional units such as a 2-hit big armour and air transport.
Default Tech Development to true	If checked, the game generated will have Tech checked on the Game Options screen in TripleA. This may be changed after choosing the game in TripleA by clicking "Game Options" before starting the game.
Default Bid	The game generated will have each player's opening bid set to this value. This may be changed after choosing the game in TripleA by clicking "Game Options" before starting the game.

The TripleA Map Generator creates a TripleA game XML file which can be loaded and played in TripleA. The Random_Campaign folder contains all the resources necessary to play the game:

Resource	Description
baseTiles	The PNG image broken into 256 X 256 tiles by the Tile Image Breaker included with TripleA.
flags	Images borrowed from TripleA and the Tactics Campaign
games	This is where the XML output is written. It includes two example games.
misc	The VC marker image from TripleA.
units	Unit images for each player borrowed from TripleA, Pact of Steel, and the Tactics Campaign.
centers.txt	The file created using TripleA's Center Picker
map.properties	The file containing various map properties, such as player colors
place.txt	The file created using TripleA's Automatic Placement Finder
polygons.txt	The file created using TripleA's Polygon Grabber
Random_Campaign.png	The game's image file. It was created using the free, 3rd-party MkHexGrid tool.
smallMap.jpeg	Image created using TripleA's Image Shrinker.

Two example games are included. You may play them after copying the Random_Campaign folder to the TripleA maps folder. You do not need to run the map generator to play them. They are representative of the type of games that may be generated.

When you run the map generator, only the XML file in the games folder is generated. All other resources are shared by the generated games. Since the games share the same 20 X 20 map, if a smaller width and height is chosen, the extra columns to the right and rows at the bottom will appear to be water hexagons. No connections will be generated for them, so they cannot be entered, even by sea units.

The "Surprise Me" button randomizes the UI settings, and then generates a random game based on them. If there are too many players on too small a map size, then you may get a message indicating certain types of hexagons could not be created. In particular, each player must have a capital for a playable map. If you get such a message, either keep clicking the "Surprise Me" button until you get a message indicating that map generation completed, or adjust one or more of the settings and click "Generate Map". You may have to click "Surprise Me" three or four times in a row to get a completed map.

Sometimes just creating a new random seed will allow map generation to complete. Most of the time you will need to increase the map size or reduce one or more of the other settings. For example, if a 10 X 10 map is specified with a Capital Distance of 19, then the generator will not be able to find hexagon locations for each player's capital that meet the criteria. Increase the map size or reduce the Capital Distance.

If Percent Water plus Percent Impassable is greater than 100, then the generator will not be able to add enough impassable territories. If Percent Impassable is set too high, then the generator may be able to complete a map, but one player may be completely isolated in TripleA.

The "Teams" option tries to create the number of teams specified with each having the same number of players. If, however, the number of players is not evenly divisible by the number of teams, then as many teams as can be created will be, but any leftover players will only be allied with themselves. For example, 7 players and 3 teams will create 3 teams of 2 players each. The seventh player will be an odd man out, allied only with itself. If the number of players is less than the number of teams, then you will end up with teams of one player each, essentially FFA with duplicate Stats.

If you generate a map while TripleA is loaded, the game will not appear on TripleA's "Choose Game" list. Quit and restart TripleA to see the game in the list. After using the map generator for a while, the TripleA "Choose Game" list will start to become cluttered with randomly generated maps. Delete any maps you no longer wish to replay using Windows Explorer.

If there are games you wish to keep and replay, rename the map XML file using Windows Explorer. The new name may be any allowable name for the operating system and TripleA, but it is recommend that you keep the "RC_" prefix and avoid special characters. You should also open the XML file in a text editor and change the "name" property (on the fourth line) to match.

For this version, the main window is just a shell that can bring up the map generator form (File New) or display this documentation (Help Contents). The map generator is displayed by default when the main window loads and is the only functionality currently available.

RULE SETS

This section covers some assumptions made while generating certain TripleA features.

INDUSTRIAL TECHNOLOGY

Industrial Production tech is loosely based on house rules. Units with an original cost of 6 to 15 get a cost reduction of 1. Unit costs over 15 are reduced by 2. Units with an original cost of 5 or less get no reduction. Reducing unit costs in this low range would represent a 20 - 50% reduction for land units, which would be un-balanced.

VICTORY CONDITIONS

There are no victory conditions specified in this version of the map generator. You can play until no other player has any TUV on the Stats tab, or you can assume the AI players resign once you have some overwhelming TUV ratio. You might, also, claim victory if you own all VCs at the beginning of your turn. The choice is yours. Do not expect a message stating, "Congratulations! You are the winner!"

On the other hand, if you are wiped off the map, game play will continue without you. Choose menu option "File" "Leave Game" to play again, or "File" "Quit" to exit TripleA.

PROPERTIES

The following TripleA engine property settings are hard coded into the XML file as un-editable in this version of the map generator.

- WW2V2: **true**
- Roll AA Individually: **true**
- Choose AA Casualties: **false**
- Allied Air Dependents: **true**
- Submersible Subs: **true**
- Two hit battleship: **true**
- Produce fighters on carriers: **true**
- Move existing fighters to new carriers: **true**
- maxFactoriesPerTerritory: **1**

ACKNOWLEDGEMENTS

- [TripleA](#) - a free, turn-based strategy game platform
- [TripleA Map Creator](#) - a free tool for TripleA map creation
- [MkHexGrid](#) - a free tool to generate hexagon-based grids

ADDITIONAL MAP DEVELOPMENT RESOURCES

- Pact of Steel 2 - the game XML file included with TripleA is heavily commented for developers and includes comments on the most recent TripleA engine features.
- Tactics Campaign - a downloadable game of particular interest to modders. There are some strange connections in the bottom half of the map. It does not appear to have been updated since 2010.