

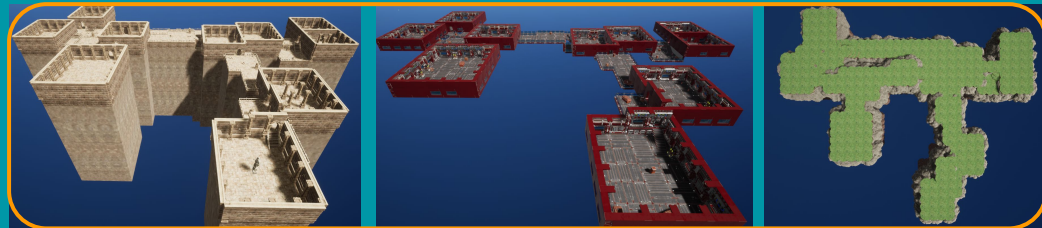
Generalities

The term “dungeon” in Yag is used very widely for all organized locations that can be automatically generated and edited with the tool presented here.

Thus, in the context of Yag, a “dungeon” can be a real dungeon (rooms and walls), but also a path, a river, a city, etc.

There are two types of dungeon layouts:

- “Classic” dungeons
 - These are rooms connected by corridors
 - This layout is suitable for dungeons, paths, rivers, anything that is linear in appearance.
- Towns:
 - These are rectangular blocks of buildings separated by streets.
 - This layout is suitable for regularly organized groups, mainly cities.



Dungeons configuration

A dungeon in Yag is made up of squares of a constant size (but different for each dungeon).

These squares automatically assemble to form cells based on the dungeon settings.

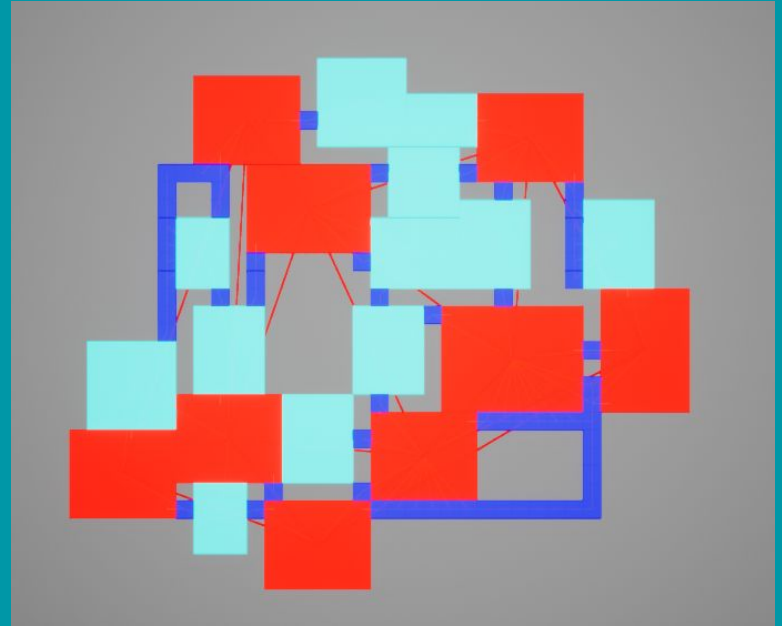
There are 3 types of cells:

- The rooms (red)
- The corridors (dark blue)
- The corridor extensions (light blue)

The number of cells is the most important parameter to determine the size of the dungeon.

The dungeon settings allow among other things to:

- Choose the number of cells
- Choose the min / max dimensions of the cells
- Choose the width of the corridors
- Choose the minimum surface area of a room
- Choose the probability of rooms / corridors
- Choose the altitude of the rooms



La fenêtre des donjons

Dungeons are managed through a window accessible from the main menu:



It contains 2 parts:

- Simple interface
- Advanced interface

The simple interface allows you to create a dungeon in one click, and manage very basic settings (name, seed, theme).

The advanced interface allows you to go further by manually choosing the shape parameters, and to manage the lighting and editing of the dungeon.

Show/hide the advanced interface



Simple interface:

- 1 click dungeon creation
- Basic parameters



Advanced interface:

- Shapes preset
- Advanced parameters
- Lighting
- Edition

Simple interface

The simple interface makes creating dungeons very easy with minimal clicks.

To validate and propagate a modification, you must **always** press the “apply” button

- The option under the button forces the automatic update of the terrain after each new dungeon
- Use with caution because the terrain takes a long time to rebuild



To quickly create a dungeon:

- Choose a preselection
- Apply

To get a different shape, modify the seed and reapply.

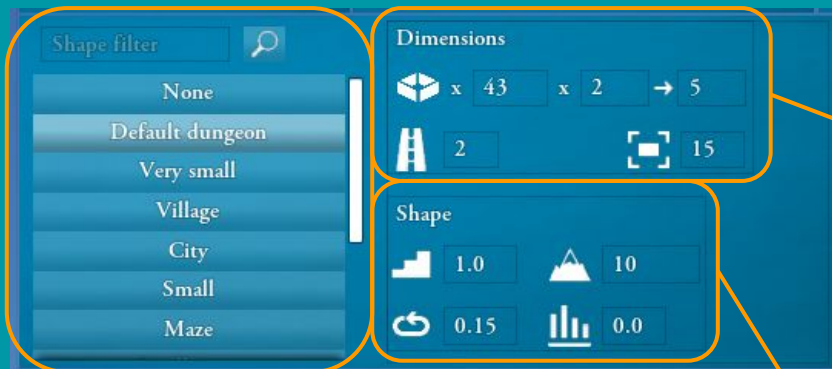
The screenshot shows the 'Dungeons' interface with several callout boxes:

- List of saved dungeons:** Points to a list on the left containing 'Cliff 01'.
- Basic options:** Points to a central panel with 'Name' and 'Seed' fields.
- Choice of theme:** Points to a vertical strip of image thumbnails on the right.
- List of 1 click presets:** Points to a list of options including 'Dungeon floors', 'Dungeon inside', 'Dungeon outside', 'Primal settlement', 'Ruins 02', 'Town', and 'City'.
- Choice of type (classic / town):** Points to a 'Dungeons' dropdown menu showing 'Towns' selected.

At the bottom left, there is a small icon of a square with a white background and a dark border, containing a dark square with a white L-shaped arrow pointing up and left, identical to the 'apply' button icon shown in the first callout.

Advanced interface: shape (1/2: dungeons)

The advanced interface for dungeon shapes allows you to fine-tune the layout of the dungeon.



Dimension settings

- Approximate number of rooms (~ size of the dungeon)
- Min / max dimensions of each room
- Corridors width
- Minimum area of a room

Shapes preselection.

- Each button fills in the manual parameters to obtain a layout.
- These presets can be used as is or as a starting point for your experiments.

Shape settings

- Probability of an altitude variation (~ stairs)
- Maximum authorized altitude variation
- Probability of loops in the dungeon
- Proportion of rooms / corridors
 - 0: favors the corridors
 - 1: favors the rooms

Advanced interface: shape (2/2: towns)

The advanced interface for towns shapes allows you to fine-tune the layout of the town.



Dimension settings

- Dimensions of the main rectangle
- Min / max dimensions of each block of buildings
 - Blocks are rectangles separated by streets

Shapes preselection.

- Each button fills in the manual parameters to obtain a layout.
- These presets can be used as is or as a starting point for your experiments.

Shape settings

- Probability of appearance of buildings in blocks
 - 0: empty blocks (only buildings along the streets)
 - 1: full blocks (very dense city)
- Probability of street suppression
 - 0: all streets present (perfect grid)
 - 1: no street (the city is a single block)

Advanced interface: lighting

Lighting can greatly vary the ambience of a dungeon.

Warning: lighting is very demanding and can cause significant slowdowns.

Lighting is not available in all dungeons, so nothing may happen when you turn it on.

The options are as follows (from top to bottom in the interface):

- Intensity
- Extinction Profile
 - 0: unrealistic extinction highlighting the lighting distance
 - 2: realistic extinction
 - large values: very diffuse extinction
- Lighting radius (max viewing distance)
- Source radius (~ bulb size)
 - determines the visible size of the source in a reflective surface
 - determines the softening of shadows in Ray Tracing
- Turning on / off the dungeon lights
- Color of dungeon lights



Advanced interface: edition

The edit mode allows you to create / modify a dungeon manually within certain limits.

Important: you must always press the “apply” button after modifications to send the modifications to all clients.

Dungeons in Yag are made up of 2 types of cells:

- Rooms
 - they are necessarily connected by corridors
 - the doors are automatically placed by the algorithm
- Corridors
 - no constraint

The doors and corridors connecting the rooms are created automatically by the engine. This is a constraint imposed by the dungeon building engine.

The possible options are:

- Real-time modification: activate only on small dungeons
- Orthoscopic view: helps avoid perspective errors
- Removal of all manual changes

