Ya3dag Editor

Based on V2.19 release of November 27, 2022

Edition history

12.07.2004 RR: First edition.
17.01.2005 GE: Reworked by Günter, Mouse menu.
25.05.2008 RR: Reworked
26.07.2008 RR: Translation to English.
30.07.2008 RR: Added a chapter about objects.
24.01.2012 RR: Updated based on V1.35 release of February 1, 2012.
19.08.2012 RR: Updated based on V1.40 release of August 19, 2012.
30.06.2013 RR: Updated based on V1.42 release of June 30, 2013.
18.01.2014 RR: Updated based on V1.50 release of January 19, 2014.
03.03.2018 RR: Updated based on V2.00 release of March 4, 2018.
07.05.2018 RR: Updated based on V2.01 release of May 7, 2018.
22.07.2018 RR: Updated based on V2.02 release of July 22, 2018.
03.12.2018 RR: Updated based on V2.03 release of December 3, 2018.
20.07.2019 RR: Updated based on V2.10 release of July 21, 2019.
26.10.2020 RR: Updated based on V2.14 release of November 1, 2020.
09.04.2021 RR: Updated based on V2.16 release of April 11, 2021.
01.06.2022 RR: Updated based on V2.18 release of June 1, 2022.
27.11.2022 RR: Updated based on V2.19 release of November 27, 2022.

Table of contents

1. Introduction

The Ya3dag editor allows

- Terrain creation/modification
- Texture the terrain
- Color the terrain
- Add splats to the terrain
- Water, lava, haze
- Models of type .md2 .md3 and quake 2 .bsp are managed here
- Lights. Shadows are seen immediately
- Way points are managed here
- Settings for sun, weather, clouds, ..

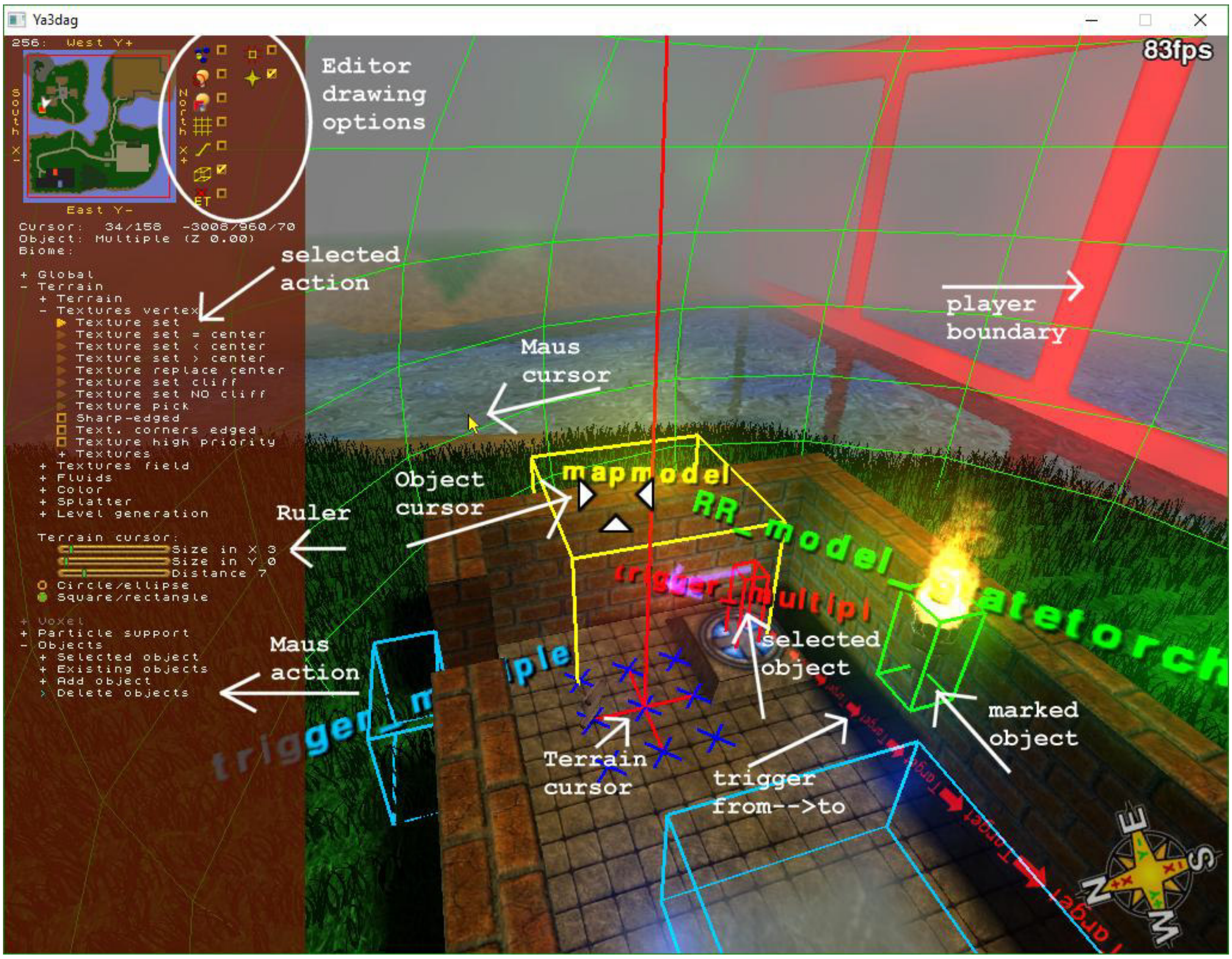
This is a **WYSIWYG** editor. What you see is what you get. You benefit from this if you move around lights and see the shadows. As often as possible you'll get a preview of what is inserted, or you see changes to objects immediately (e.g. skin selections).

2. Get the editor

- Press the e key to open the level editor.
  See menu ‚*Options/Input/Key bindings*‚.
  Here the default for the key binding ‚*level editor*‛ can also be changed.

- With the console command 'edit'.
  Open the text console with the shift + escape key. Then type edit and press the return key.

3. Screen layout and mouse usage



Cursor: 34/158 -3008/960/70
Object: Multiple (Z 0.00)
Biome:

Size in X 3
Size in Y 0
Distance 7

Terrain cursor
The terrain cursor is used for terrain modification. The number of blue crosses depends from the terrain cursor size. Terrain points with a blue cross are the target for terrain modifications. The red lines in the center of the terrain cursor are for better visibility only. The terrain cursor is placed in your view direction.
If the mouse is inside the scene view the mouse wheel changes the terrain cursor distance.

Object cursor
The Object cursor consists of three white arrows. If the mouse is moved in the scene area, it appears. Objects behind the object cursor get a yellow frame. Press the left mouse button to select the object. Press the right mouse button to mark the object.
Selected objects get a red frame and their settings are displayed in the **Selected object** submenu. Marked objects are used for targeting (more later).

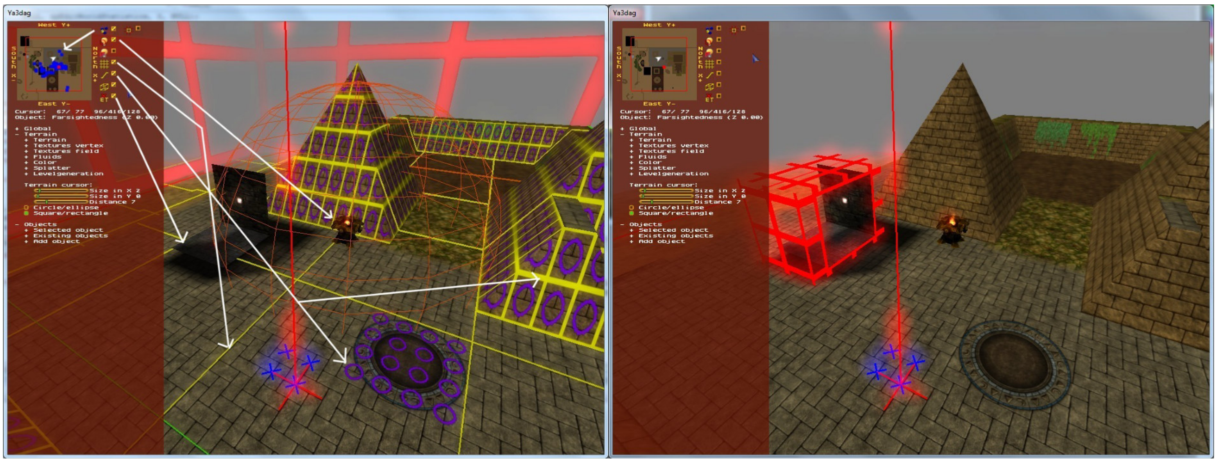
MiniMap
In the upper left corner of the screen. Here a reduced terrain view is visible. The white arrow visualizes the viewpoint of the editor.
If the mouse is over the MiniMap, the terrain cursor is placed on congruent in the scene view. Press the left mouse button to execute the **selected action** (more about this later). Press the right mouse button to change the scene view to this location.
The red lines you see are the player boundary. The player can be only inside that rectangle.
The number above the top left corner is the size of the level.

Menu
On the left screen side. Here you make selections or change settings. The

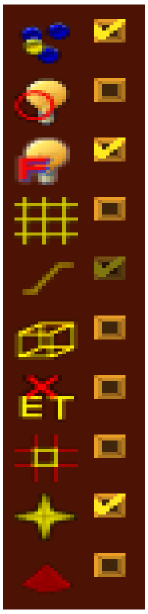
menu is operated primarily with the mouse. Menu points are colored green if the mouse is over them.
Press the left mouse button to do something with the menu point. In the image above you see most of things: open/closed sub menus, checkboxes, radio buttons, rulers. The important thing here is the selected action. Dark arrows are candidates for it. The yellow arrow is the selected action (which is executed if you press the action key).
An menu line with a light blue > character at begin is a mouse action. Press the left mouse button to execute this action.
The scrollbars limits the number of submenu points (as can be seen in the Existing objects sub menu). Use the left mouse button to scroll down and the right to scroll up.
The mouse wheel is useful for scrollbars and rulers.

Scene
The right side of the screen. This is where the terrain and objects are visible.
The three white arrows you see here is the object cursor (see above for more about objects).
The red line in the background (of the image above) is the player boundary. The player can be only inside the player boundary.

Editor drawing options
These checkboxes switch settings for the editor (mainly visualizations drawings).



Show objects in MiniMap.



Visualize light radius.

Fast light calculation. Speeds up move of big objects.

Terrain grid with spacing 256/1024.

Visualize 'cliffs' and 'field textures'.

Visualize world boundary.

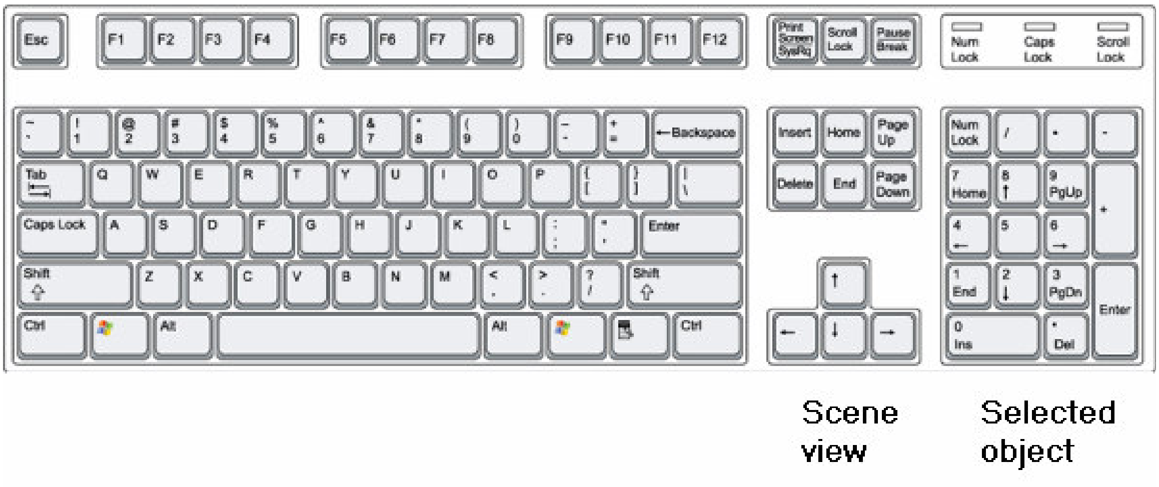
Don't draw Editor textures.
Some objects have Editor textures to better position the object.

Draw extensions of selection boxes.

Draw a compass in the lower left corner.

Voxel Blocks with a redstone level > 0 are colored red.

4. Keyboard



Number block
This keys work with the selected object.

<> ^ V: Objects position
By 16 units.
By 64 units while holding down the Shift key.
By 1 units while holding down the Ctrl key.
By 256 units while holding down the Shift and Ctrl key.
Additional press the Alt key to modify the size of some objects (blue framed).

PgUp PgDn: objects distance relative to the terrain
By 16 units.
By 64 units while holding down the Shift key.
By 1 units while holding down the Ctrl key.
By 256 units while holding down the Shift and Ctrl key.
Additional press the Alt key to modify the height of some objects (blue framed).

Home End: Objects angles
By 45 degrees.
By 11.25 degrees while holding down the Ctrl key.
Additional press the Shift key to change the PITCH angle.
Additional press the Alt key to change the ROLL angle.

5: Reset all object angles

+ -: Objects size
Modifies the 'Size Factor' field of some objects (.md2 and .md3 models).

Del: delete object (remove)

Cursor block
This keys affect the view of the scene.

< > ^ v: Move
By 64 units.
By 512 units while holding down the Shift key.
By 4 units while holding down the Ctrl key.
By 2048 units while holding down the Shift and Ctrl key.

Page Up Page Down: Height of view relative to the terrain
By 64 units.
By 512 units while holding down the Shift key.
By 4 units while holding down the Ctrl key.
By 2048 units while holding down the Shift and Ctrl key.

Insert Delete: Change view yaw angle
By 30 degrees.

Home End: Change view pitch angle
By 10 degrees.

Miscellaneous

Esc Leave the editor.

m Mark selected object.

t The field 'target' of the selected object and the field 'targetname' of the marked object will receive the same text (a time stamp). The marked object points to (or triggers) the selected object.
Pressing one of the numeric keys as modifier, the following alternate fields are used:

key	field
1	target
2	target2
3	killtarget
4	pathtarget
5	combattarget
6	deathtarget
7	movewith

spacebar Execute the selected action from the menu.
Press the Ctrl key pressed at the same time to:

* On insert of an objects, the terrain cursor's x size specify the number of objects to insert. This is good for eg forests.
* On creation of a new map, the current objects are not deleted. This enables you to change the map size without lose the objects.

r Terrain 'Raise' action.
l Terrain 'Lower' action.
f Terrain 'Flatten' action.
p Terrain 'Plateau' action.
n Terrain 'Uneasier' (or noise) action.
s Terrain 'Smooth' action.
d Daylight change.
g Switched lights on/off.
c Relight level, compute level lights and shadows.

w Insert an 'waypoint' object.
If the Ctrl key is pressed at the same time, the new 'waypoint' is connected with the a prior 'waypoint'.

Ctrl This key together with an other key is used shortcuts of actions. If it is usable, the shortecut is noted in the Help for this action.

Ctrl c Copy the selected object.
This can be used also in text fields of the menu.

Ctrl v Paste object at the terrain cursor.
This can be used also in text fields of the menu.

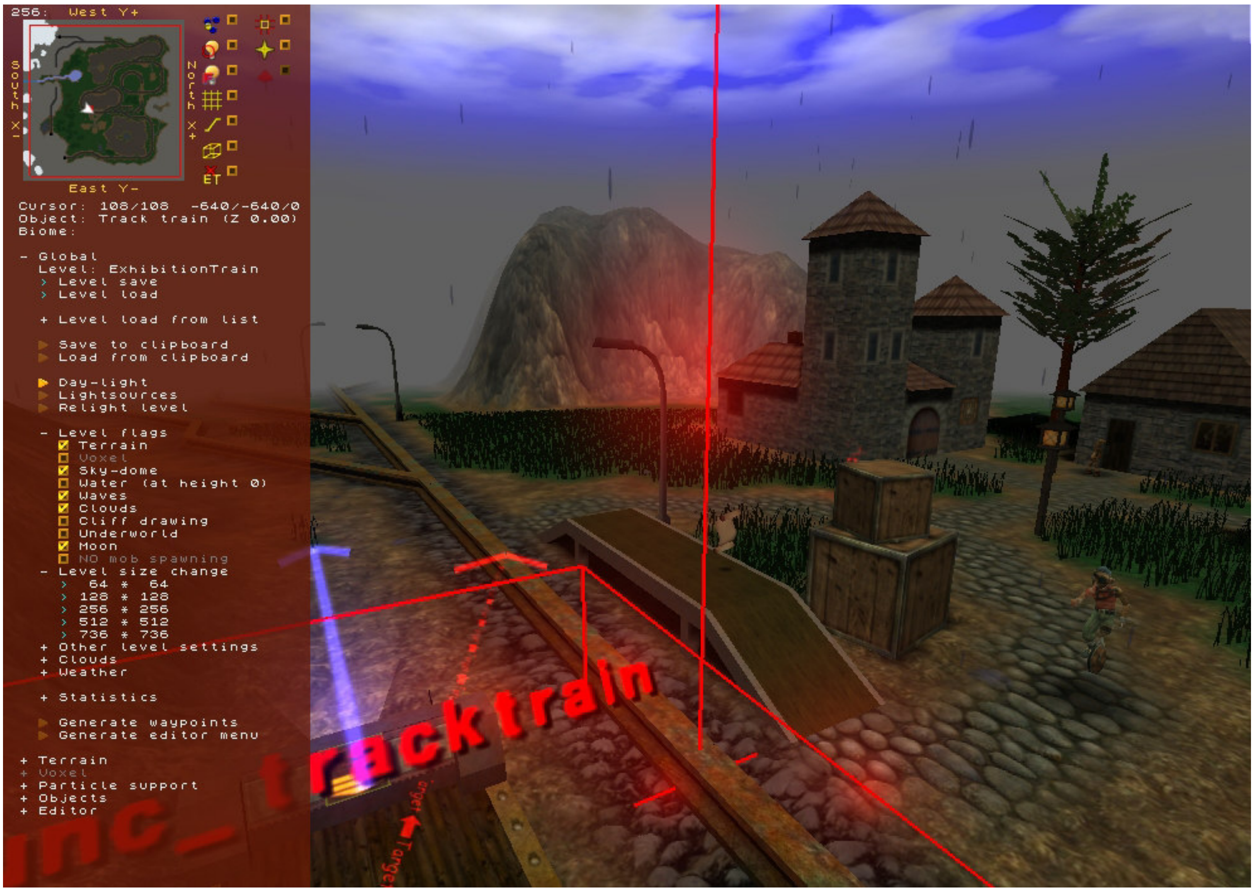
Ctrl x Copy the selected object and delete it.
This can be used also in text fields of the menu.

Ctrl s Save the level.
Ctrl l Load/reload level from file.
Alt This key together with an other key opens a specific editor menu. Other editor menus are closed.

F9 Saves the current level to clipboard
F10 Loads level from clipboard

Alt	This key together with an other key opens a specific editor menu. Other editor menus are closed.
Alt g	Open the ‚Global‘ editor menu.
Alt t	Open the ‚Terrain‘ editor menu.
Alt v	Open the ‚Voxel‘ editor menu.
Alt b	Open the ‚Voxel/Block modification‘ editor menu.
Alt m	Open the ‚Voxel/Area modification‘ editor menu.
Alt f	Open the ‚Voxel/Flowing Liquids‘ editor menu.
Alt p	Open the ‚Particle support‘ editor menu.
Alt o	Open the ‚Objects‘ editor menu.
Alt a	Open the ‚Objects/Add object‘ editor menu.
Alt s	Open the ‚Objects/Selected object‘ editor menu.

5. Menu Global



```
Cursor: 108/108  -640/-640/0
Object: Track train (Z 0.00)
Biome:

- Global
  Level: ExhibitionTrain
  › Level save
  › Level load

  + Level load from list

  ▶ Save to clipboard
  ▶ Load from clipboard

  ▶ Day-light
  ▶ Lightsources
  ▶ Relight level

  - Level flags
    ☑ Terrain
    □ Voxel
    ☑ Sky-dome
    □ Water (at height 0)
    ☑ Waves
    ☑ Clouds
    □ Cliff drawing
    □ Underworld
    ☑ Moon
    □ NO mob spawning
  - Level size change
    ›  64 *  64
    › 128 * 128
    › 256 * 256
    › 512 * 512
    › 736 * 736
  + Other level settings
  + Clouds
  + Weather

  + Statistics

  ▶ Generate waypoints
  ▶ Generate editor menu

+ Terrain
+ Voxel
+ Particle support
+ Objects
+ Editor
```

The actions or settings in the **Global** menu work with the entire level. Below you see a brief description of each menu item.

Level:
Name of level to save or load.

Level save
This will be one of the most frequently used menu items. Save your level frequently so that no changes will be lost. Also the ‚Ctrl s‘ keys save the level.

Level load
Load the level.

Level load from list
This is a list of all available layers. Open it to load each of these levels.

Save to clipboard
Saves the current level to a clipboard
Load from clipboard

Loads a level from the clipboard

Day-light
Change the daylight. Noon, evening or night.

Lightsources
Switched lightsources on or off.

Relight level
New lights/shadow calculations for the level.

Level flag: Terrain
Enable terrain for this level.

Level flag: Voxel
Enable voxels for this level.

Level flag: Sky-dome
When drawing the world a so called sky-dome is used. Switch it and or off to see the difference.

Level flag: Water (at height 0)
Water for the complete level. This is only used for enabled terrain.

Level flag: Waves
Waves at shorelines. This is only used for enabled terrain.

Level flag: Clouds
The sky is covered with clouds.

Level flag: Cliff drawing
For terrain with steep slopes, the texture is drawn differently. The textures are aligned in height.

Level flag: Underworld
Divides the world in upper world (with terrain) and underworld. The underworld exists beneath the terrain. It is intended for dungeons and interiors of buildings. In order to optimize the frame rate, the drawing process for the underworld and the grounds are separated from each other. The editor shows a green grid that separates the upper and underworld.

Level flag: Moon
Draw a moon.

Level flag: NO mob spawning
For voxel level only. If checked, no mobs will be spawned randomly.

Level size change
Change the size of the level.

Other level settings
Color of sun, clouds, ...

Clouds
Cloud specific settings.

Weather
Weather settings

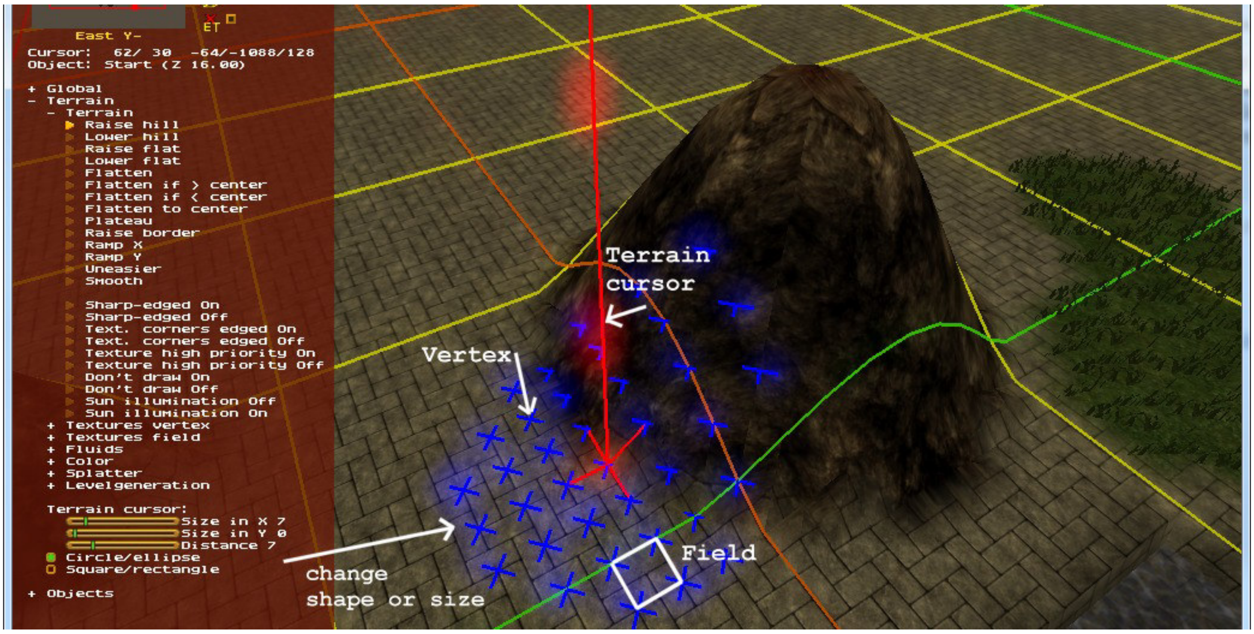
Statistics
Shows the usage of resources.

Generate waypoints
Generate a network of waypoints.
ATTENTION: All existing waypoints are removed!

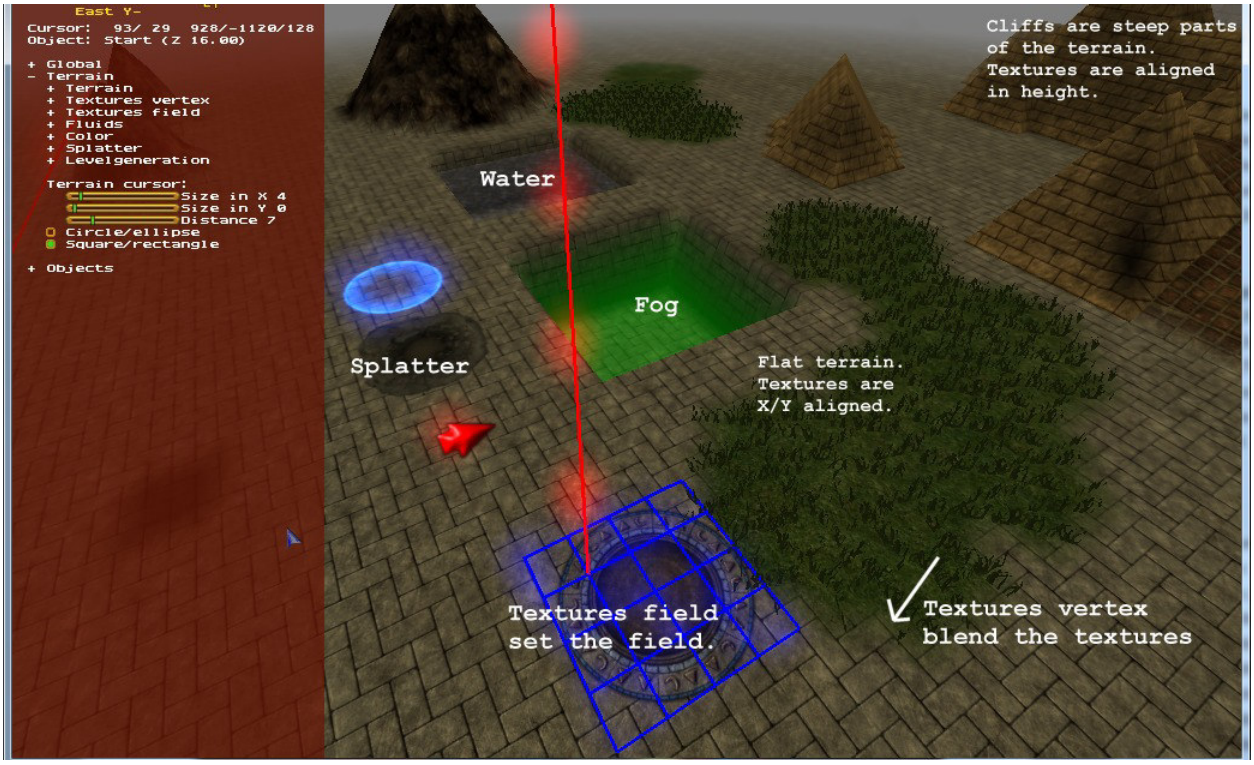
Generate editor menu
Dump editor menu to the file RRGameDocs/EditorMenu.txt. Get a snapshot of all available editor commands or settings.

6. Menu Terrain

The checkbox ‚Global/Level flags/Terrain‛ must be set to work with terrain.



Terrain in Ya3dag is simply a large array of height values.
A **Vertex** is an array element with a height value. A **Field** are four adjacent Vertex.
Most of the terrain modifications work on Vertex. Changing the height of the terrain, change texture, coloring, ...
The Terrain cursor is the point of modification. Each small blue cross identifies a Vertex. In order to assist you for certain tasks, sometimes the color or the shape of this crosses will be adapted.



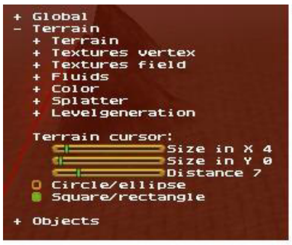
Cliffs are steep parts of the terrain. Textures are aligned in height.

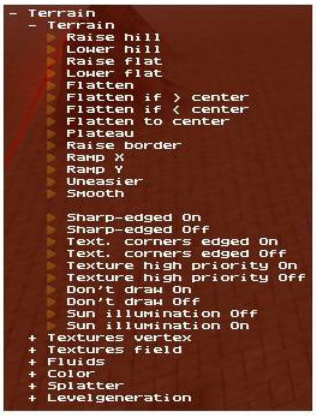
Flat terrain. Textures are X/Y aligned.

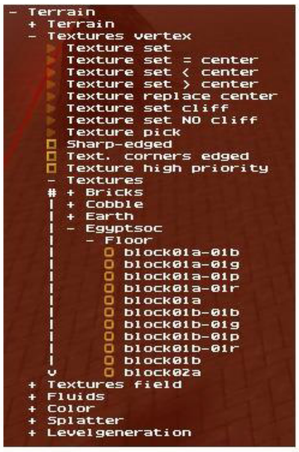
Textures field set the field.

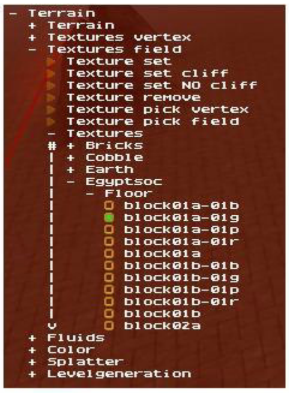
Textures vertex blend the textures

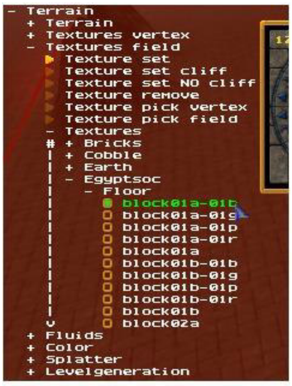
In the picture above you see some things that can be done with the terrain.

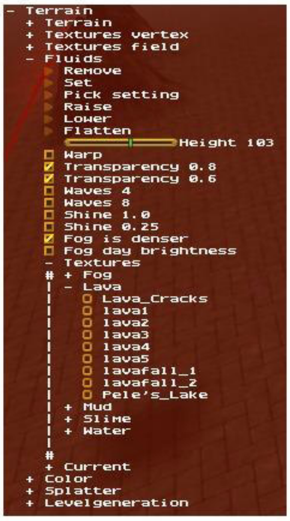


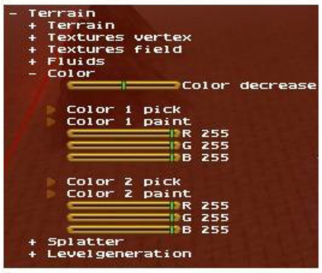


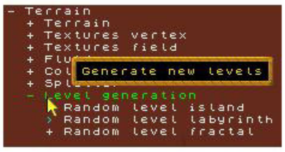


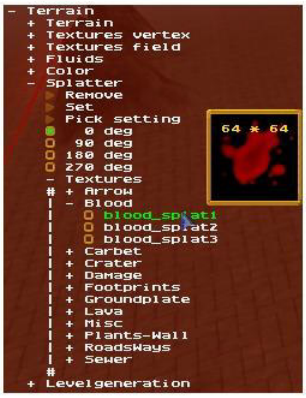












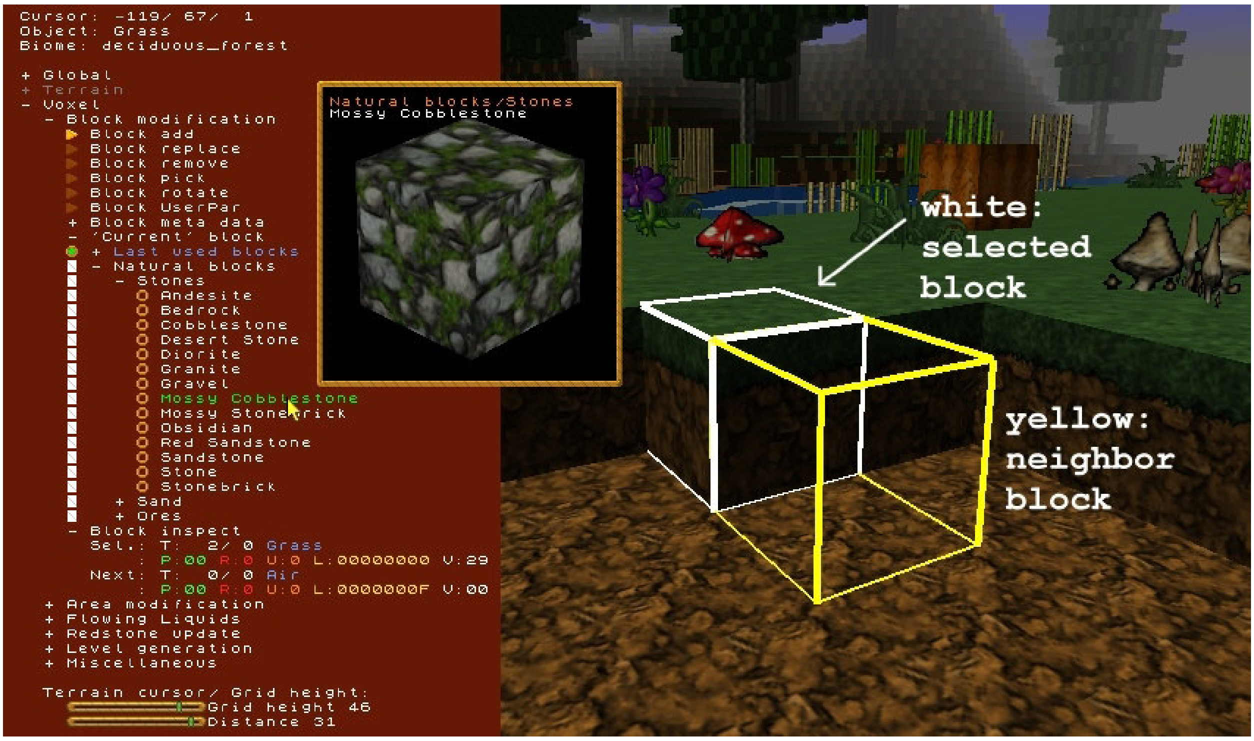
Above you can see screenshots of all terrain menus. Enjoy trying all Editor capabilities.

7. Menu Voxel

The checkbox ‚Global/Level flags/Voxel‛ must be set to work with voxels.

Since version 2.00 Ya3dag supports voxel terrain.

Block modification



The world is made up from blocks. The **Block modification** menu features single block modification.

The white cube frames marks the selected block. This one can be replaced, removed, picked as ‚current‛ block or rotated (if possible for the block). Move the mouse to the scene view to select a block.

The yellow cube is the neighbor of the selected block. Here a new bock can be added.

Block meta data allows the modification of meta data associated with the last picked, added or replaced block. This allows the labeling of signs, the manual filling of chests, ...

The ‚current‛ block is the one which is incarnated to the world for add or replace operations. Pick the selected block or get a new one of its submenu.

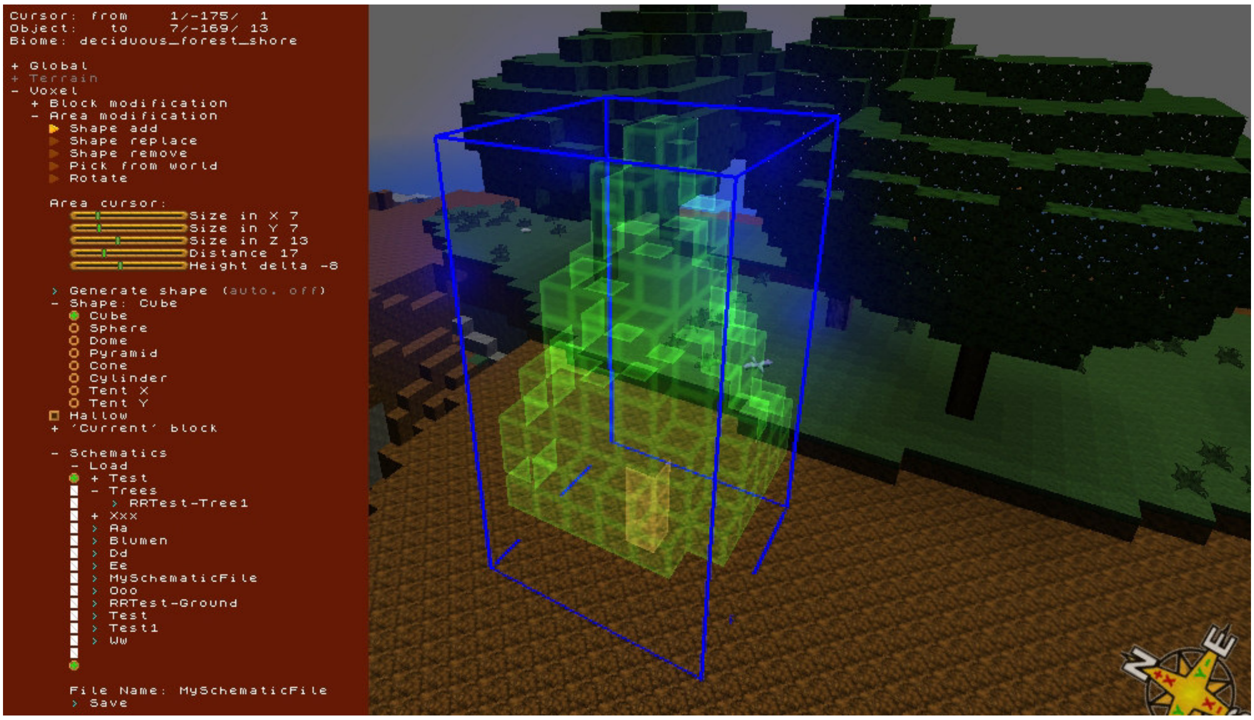
Block inspect shows some information of the selected/neighbor blocks.

T: block type (block code and name of block)
P: block parameters (only for expert use)
R: Redstone level of this block (only for expert use)
U: block user parameter (only for expert use)
L: block light information (only for expert use)
V: block visibility information (only for expert use)

If the **Block modification** menu is open this keys can be used:

Ctrl c	Pick selected block as ‚current‛ block
Ctrl x	Pick selected block as ‚current‛ block and remove it
Ctrl v	Add the ‚current‛ block
Ctrl r	Rotate the block around Z axis (block must support this) Ctrl Shift r: Some blocks toggle models (like lever on/off)

Area modification

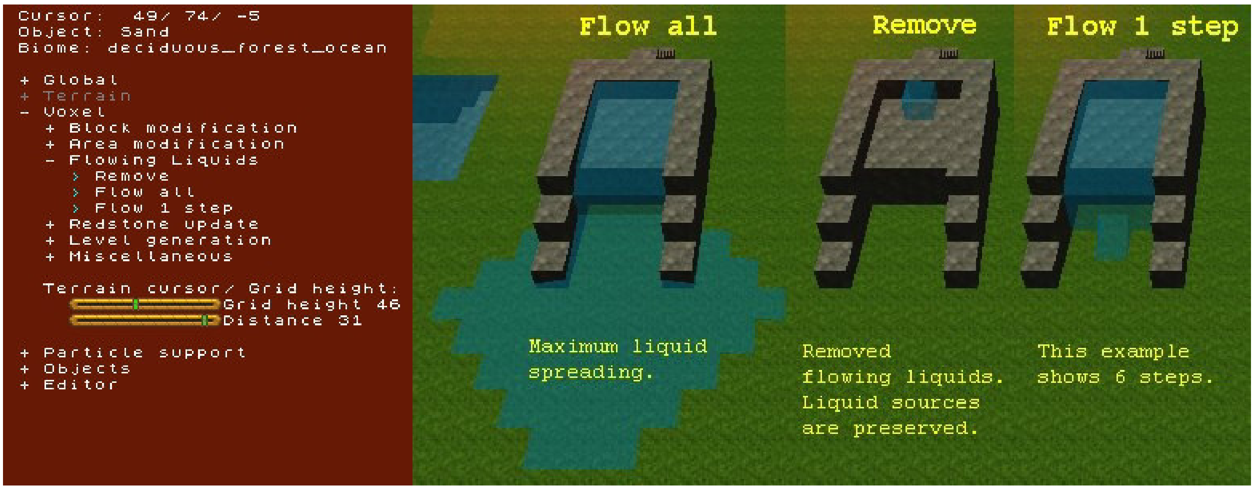


```
Cursor: from    1/-175/  1
Object:   to    7/-169/ 13
Biome: deciduous_forest_shore

+ Global
+ Terrain
- Voxel
  + Block modification
  - Area modification
    ▶ Shape add
    ▶ Shape replace
    ▶ Shape remove
    ▶ Pick from world
    ▶ Rotate

    Area cursor:
      Size in X 7
      Size in Y 7
      Size in Z 13
      Distance 17
      Height delta -8

    > Generate shape (auto. off)
    - Shape: Cube
      ● Cube
      ○ Sphere
      ○ Dome
      ○ Pyramid
      ○ Cone
      ○ Cylinder
      ○ Tent X
      ○ Tent Y
    □ Hallow
    + 'Current' block

    - Schematics
      - Load
      ● + Test
      □ - Trees
      □     > RRTest-Tree1
      □ + Xxx
      □ > Aa
      □ > Blumen
      □ > Dd
      □ > Ee
      □ > MySchematicFile
      □ > Ooo
      □ > RRTest-Ground
      □ > Test
      □ > Test1
      □ > Ww
      □
      ●

      File Name: MySchematicFile
      > Save
```

The **Area modification** menu features modification of cuboid block areas.

With the ,area cursor‵ sliders adapt the size of the cuboid. Change distance (mouse wheel) to get ,area cursor‵ closer / farther away. With height delta (Ctrl + mouse wheel) the ,area cursor‵ is shifted up/down.
Block areas can be added to the world (keep existing blocks), are can replace all bocks inside the ,area cursor‵. The blocks inside the ,area cursor‵ can be removed or picked as a so-called shape.
Shapes can be generated from some built in forms. Save them as a so-called schematic to a file or load such schematics as ,area cursor‵.

Flowing liquids



```
Cursor:  49/ 74/ -5
Object: Sand
Biome: deciduous_forest_ocean
```

Grid height 46
Distance 31

Flow all

Maximum liquid spreading.

Remove

Removed flowing liquids. Liquid sources are preserved.

Flow 1 step

This example shows 6 steps.

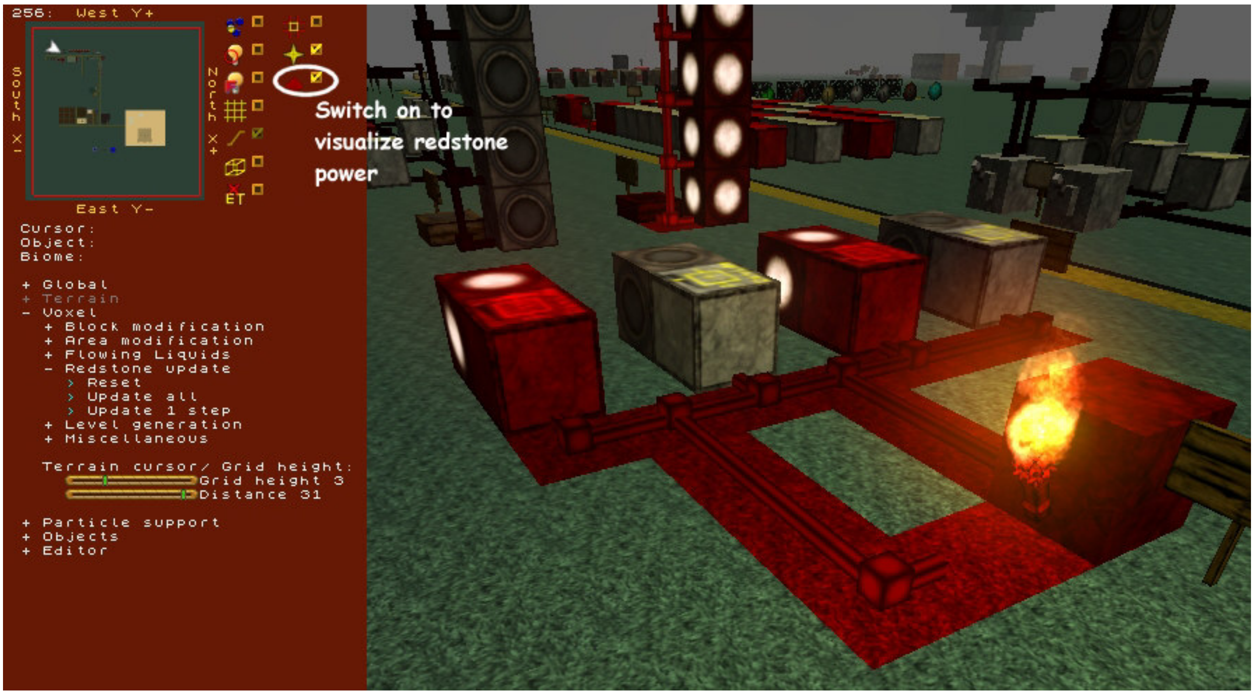
The **Flowing liquids** menu features manipulation of flowing liquid blocks.

- **Remove**
  Remove all flowing liquid blocks from the level. The liquid source blocks stay.
- **Flow all**
  Maximum liquid spreading.
- **Flow 1 step**
  Each mouse click spreads the liquids by one more step (or block). For the best effect, the fluent liquids should first be removed.
  This menu item provides a deeper insight into the spreading of liquids.

What you should know. Comments for designing level.

Loading a level for the game a ‚**flow all**‘ processing is done for the complete level. Loading a level inside the editor no modification of flowing liquids are done.
The recommendation is to save the levels without flowing liquids blocks. This approach allows easier change of liquid source blocks.

Redstone update



Switch on to visualize redstone power

The **Redstone update** menu offers functions for playing around with redstone power.

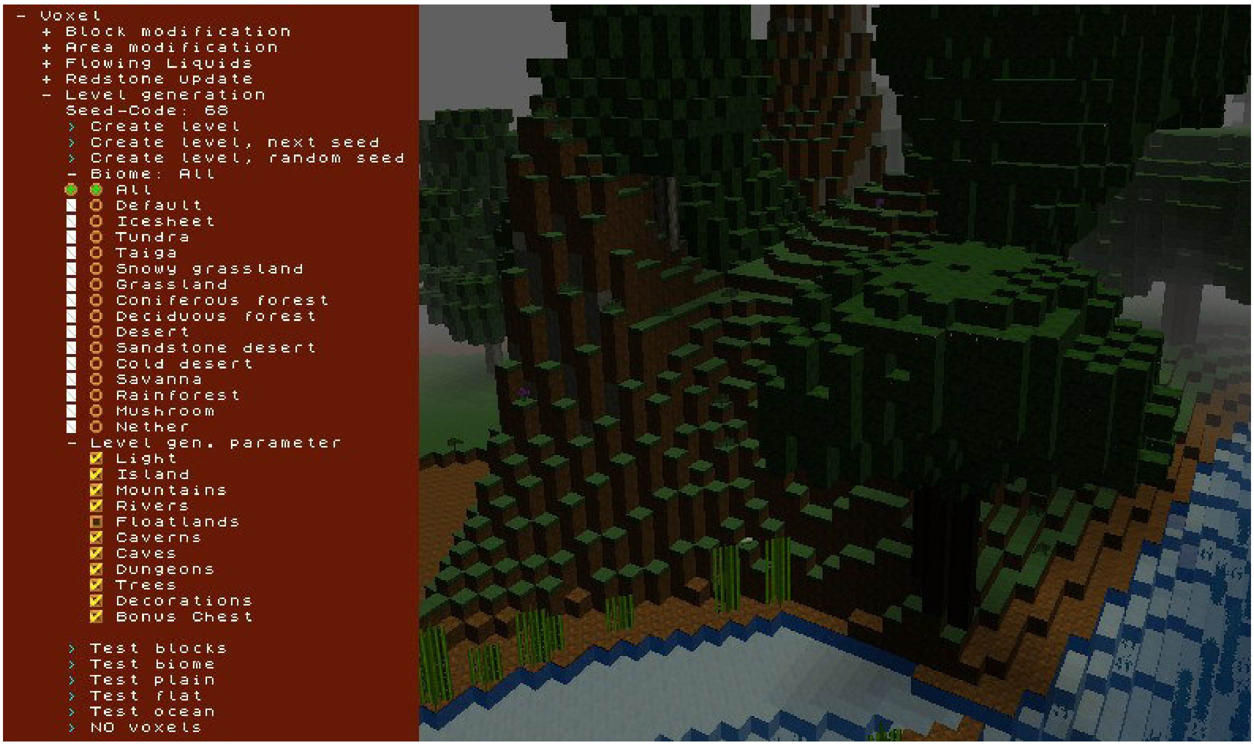
- **Reset**
  Reset redstone levels of all blocks to zero.
  NOTE: each block holds a redstone power level (0 to 15). This level can be visualized with a checkbox at top of the editor pane.
- **Update all**
  Redstone update for the level.
  After resetting the redstone level of all blocks the distribution of redstone power is recalculated for the entire level.
- **Update 1 step**
  Each mouse click performs one redstone update.
  During the game, this redstone update is performed every 1/10 second.
  Use this after 'Reset' to see the redstone update working.

NOTE: The show case level 'Test-Structures' shows usage of redstone components.

What you should know. Comments for designing level.

Loading a level for the game a ‚**update all**‘ processing is done for the complete level.

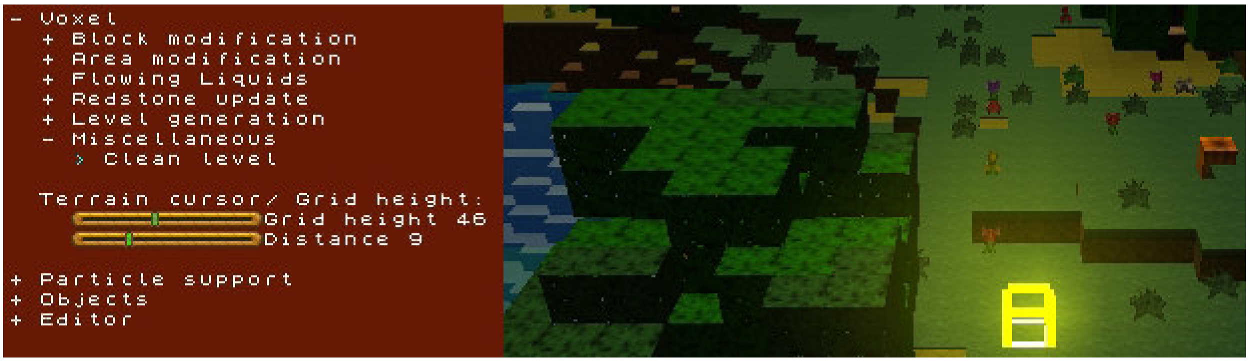
Level generation



```
- Voxel
   + Block modification
   + Area modification
   + Flowing Liquids
   + Redstone update
   - Level generation
     Seed-Code: 68
     > Create level
     > Create level, next seed
     > Create level, random seed
     - Biome: All
     ● ● All
     □ ○ Default
     □ ○ Icesheet
     □ ○ Tundra
     □ ○ Taiga
     □ ○ Snowy grassland
     □ ○ Grassland
     □ ○ Coniferous forest
     □ ○ Deciduous forest
     □ ○ Desert
     □ ○ Sandstone desert
     □ ○ Cold desert
     □ ○ Savanna
     □ ○ Rainforest
     □ ○ Mushroom
     □ ○ Nether
     - Level gen. parameter
       ☑ Light
       ☑ Island
       ☑ Mountains
       ☑ Rivers
       □ Floatlands
       ☑ Caverns
       ☑ Caves
       ☑ Dungeons
       ☑ Trees
       ☑ Decorations
       ☑ Bonus Chest

     > Test blocks
     > Test biome
     > Test plain
     > Test flat
     > Test ocean
     > NO voxels
```

Play around with random level generation. With the possibilities offered, a variety of levels can be generated.

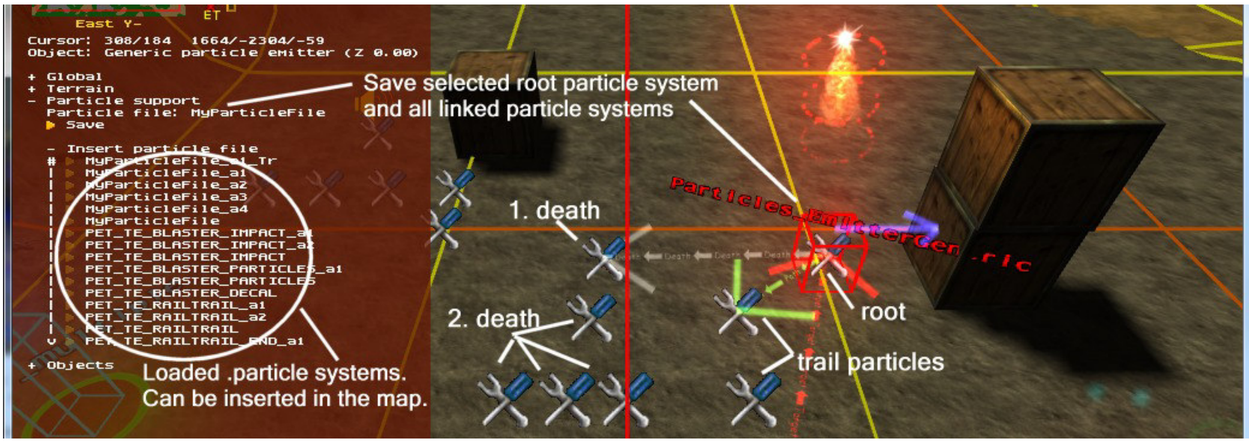
Miscellaneous



```
- Voxel
   + Block modification
   + Area modification
   + Flowing Liquids
   + Redstone update
   + Level generation
   - Miscellaneous
     > Clean level

  Terrain cursor/ Grid height:
     ═══════════Grid height 46
     ═══════════Distance 9

+ Particle support
+ Objects
+ Editor
```

Various voxel-related tasks are at home here.
Note the help text pop up of the various menu items.

8. Menu Particle support



```
Cursor: 308/184  1664/-2304/-59
Object: Generic particle emitter (Z 0.00)
```

Save selected root particle system and all linked particle systems

Loaded .particle systems. Can be inserted in the map.

Ya3dag has a build in particle engine. This was already used to run the particle effects for weapons, impacts, explosions and ….

Since Ya3dag an entity **Particles_EmitterGeneric** can be added to the map (Objects/Add object/Particle Emitter/Generic particle emitter).
Particle systems can be build be link multiple **Particles_EmitterGeneric.**

Target a other particle emitter with the **t** key and the key

1	target	up to 4 particle emitters can be associated
4	pathtarget	for particle trails
5	combattarget	particle bounce, execute particle system
6	deathtarget	is executes if a particle dies

to build particle systems.

If the root particle entity targets something other than a **Particles_EmitterGeneric**, we have a beam type particle system.

The particle systems can be triggered by an trigger_multiple (or other trigger sources).

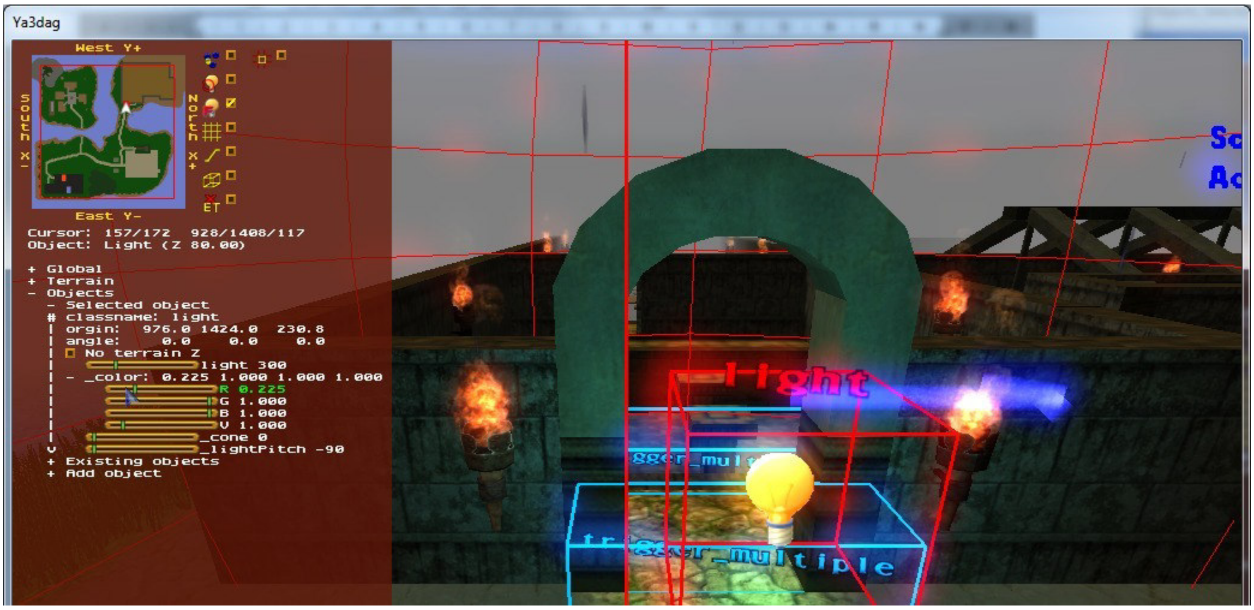
Save: If a **Particles_EmitterGeneric** is selected, this particle system and all associated other **Particles_EmitterGeneric** are saved to **Particle file** in the scripts subdirectory. This file can be reworked to replace one of the build in particle effects.

During startup of an level, all **.particle** files from the scripts subdirectory are loaded. Depending from the name of the root particle system in such an file, one of the following build in particle effects can be replaced.

More to come …

Via **insert particle file** the loaded particle files can be inserted in the map as a particle system.

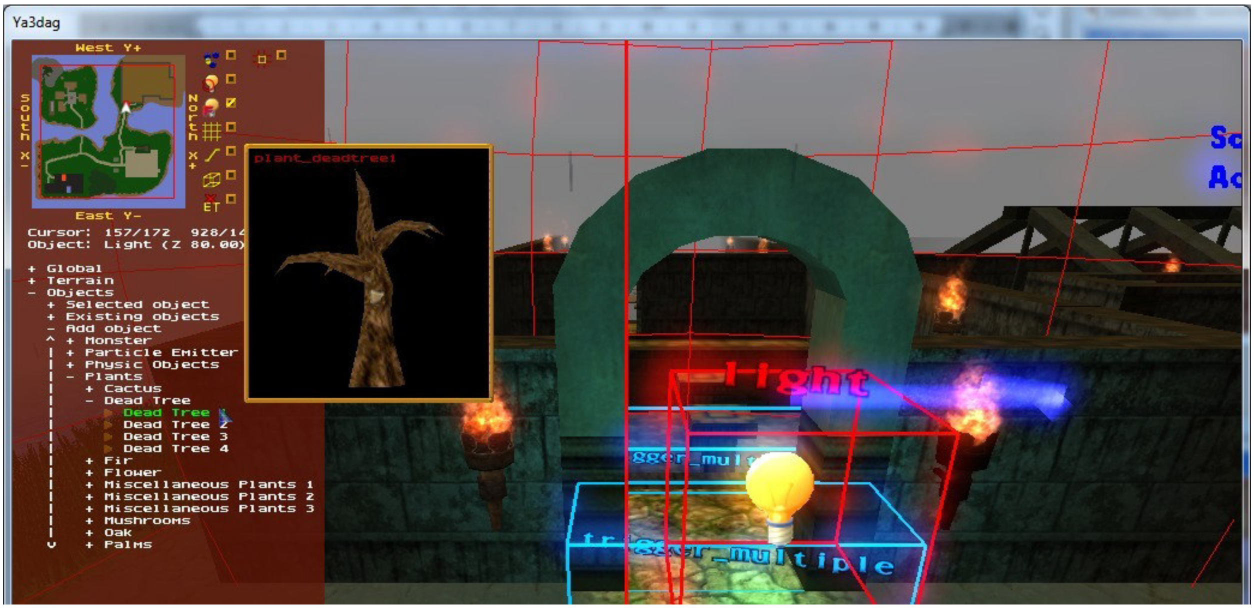
9. Menu Objects



```
Cursor: 157/172  928/1408/117
Object: Light (Z 80.00)

+ Global
+ Terrain
- Objects
  - Selected object
  # classname: light
  | orgin:   976.0 1424.0  230.8
  | angle:     0.0    0.0    0.0
  | □ No terrain Z
  |                light 300
  | - _color: 0.225 1.000 1.000 1.000
  |                R 0.225
  |                G 1.000
  |                B 1.000
  |                V 1.000
  |              _cone 0
  v              _lightPitch -90
  + Existing objects
  + Add object
```

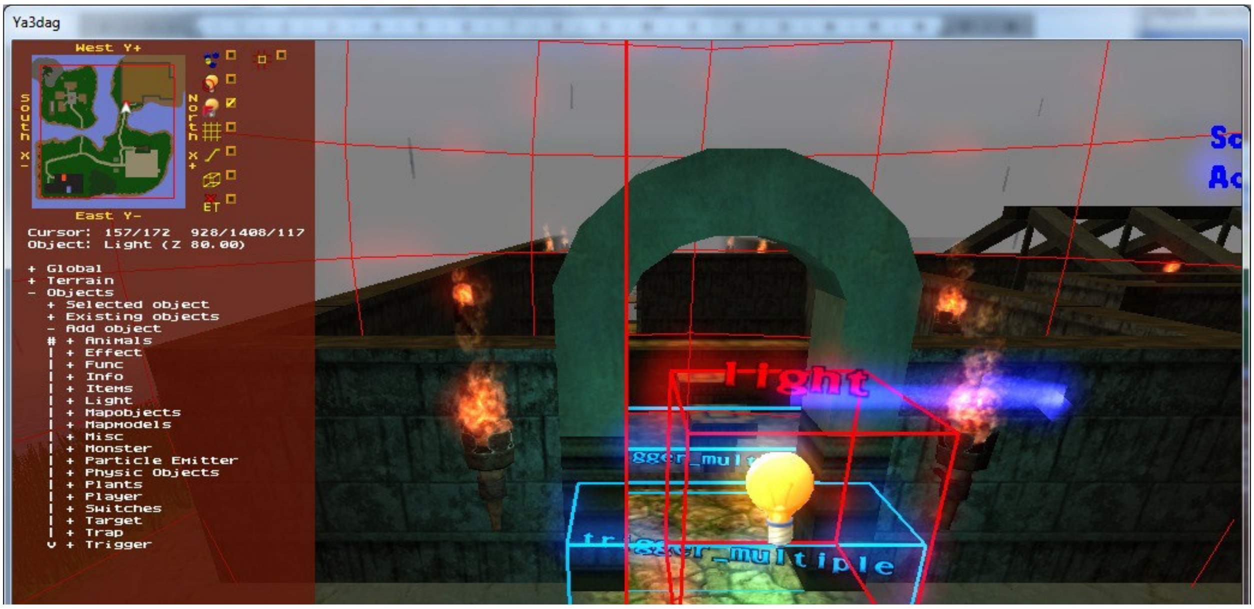
Above you see the selected object sub menu. Here the properties of the object with the red frame are displayed. **classname** is quake 2 specific. This property distinguish one object type from an other. The properties **origin** and **angle** are modified with the keyboard. The other properties are modified in this menu. Ruler are changed with the left mouse button or the mouse wheel or the cursor keys. Have a look to **Ya3dag\RRGameDocs\Lazarus\index.html** to learn more about objects and properties.

The **Object:** just below the MiniMap names the selected object and it's distance relative to the terrain.



```
Cursor: 157/172  928/14
Object: Light (Z 80.00)

+ Global
+ Terrain
- Objects
  + Selected object
  + Existing objects
  - Add object
  ^ + Monster
  | + Particle Emitter
  | + Physic Objects
  | - Plants
  |   + Cactus
  |   - Dead Tree
  |     ▶ Dead Tree 1
  |     ▶ Dead Tree 2
  |     ▶ Dead Tree 3
  |     ▶ Dead Tree 4
  |   + Fir
  |   + Flower
  |   + Miscellaneous Plants 1
  |   + Miscellaneous Plants 2
  |   + Miscellaneous Plants 3
  |   + Mushrooms
  |   + Oak
  v   + Palms
```

Where appropriate, you see a help window (with preview of models). If the mouse is over an appropriate menu item, you can also listen to level music or the sounds of a target_speaker. So turn on your speaker.



```
Cursor: 157/172  928/1408/117
Object: Light (Z 80.00)
```

Above you see the Add object sub menu with the group of objects which can be added. Following some comments on these object groups.

Animals are not monsters. They are level decoration. Where they placed in the level, they walk around.

Plants are also level decoration. Usually, they can play ambient noise, such as a Birdsong.

Light is a collection of light sources. Change the colour, style or range.

Mapobjects are .md2 or .md3 models and also level decoration. You can find Skeletons, dead animals, vases and such things here.

Mapmodels are .bsp models. Larger buildings are made out of several small .bsp models. You can find bridges, cargo boxes, graves, walls and such things here.

Particle Emitter is a sort of active level decoration. Smoke, stars, fog fields and more is here. Note that some of this objects can be changed in size. The height affects the number of particles.

Physic Objects are the interface to the **bullet** physic simulation. Look at the examples in level ExhibitionPhysics, to learn how to use them.

The most interesting thing in **misc** is the actor object. This are the models of the smart NPC's. Each quake 2 or quake 3 player model can be used.

Waypoints are found in *'misc/Move points'*. NPC's use them for orientation in the level. Give it a name, so that the NPC know where they go. Waypoints are connected with the t key (see the keyboard description).

10. For the advanced

10.1 Using original quake 2 monsters

Ya3dag is a quake 2 modification. As such also the original quake 2 models can be used.
The original Quake 2 models are not part of ya3dag (for copyright reasons).
If you own quake2, copy the pak0.pak file from the directory quake2\BaseQ2 to Ya3dag\BaseQ2 and you got them.
If you don't have pak0.pak you seed an image 'Missing model' in place of the models.

10.2 Go to the max

The file Q2T_BaseQ2.pkz in the directory Ya3dag\BaseQ2 and the file Q2T_RRGame.pkz in the directory Ya3dag\RRGame are .zip files. Rename this files to have a .zip extension and extract the contents. Now you can add more/new media by simply copy it into the appropriate directory.

```
   Ya3dag\BaseQ2\players
     Player models are used as NPC's (are actors).

   Ya3dag\BaseQ2\textures\Q2T\tex
     Terrain textures. There is a read me file in this directory.

   Ya3dag\BaseQ2\textures\Q2T\Splats
     More terrain splats.

   Ya3dag\BaseQ2\textures\Q2T\Water
     More water, lava, ... textures.

   Ya3dag\RRGame\music
     More level music.

   Ya3dag\RRGame\sound or Ya3dag\BaseQ2\sound
     Copy a .wav file to one the subdirectories ambience, ambient,
     ambient/inside, ambient/outside, RRMisc, world add a new sound
     for a target_speaker.

   Ya3dag\RRGame\scripts\Items.txt
     Add/change items for the game.

   Ya3dag\RRGame\RRGame\quake2RR.ent
     The last editor challenge. This file describes the Add object
     sub menu.
```