Turtle Tuki Adventures 2: Dwarven Gold

by

Mystic Peanut Entertainment

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1 Intro

Every great game has a sequel.

Turtle Tuki Adventures 1: Turtle Shepherd may not be the greatest of games but we treasure it because it is our firstborn. And it has a silly casual plot. Even before it was made, the plan was to make several games of different genre for learning it all: shooter, point and click adventure, first person RPG…
First one was the simple shooter, now the time has come for second one: point and click adventure.

Giant leap forward from first to second game is Level Editor, a tool that is found necessary for building games with multiple levels. First game only had one level and that one was hardcoded. It is impossible to make bigger games like that. Second game will have graphical editor which can be used to layout levels with ease, without need to code.

This document describes the second sequel to Turtle saga. It will serve as design specification that lists all game features, game story and all tasks that need to be done to reach production state. Hence the following chapters are:

- **Game requirements**. Describes what software and hardware will be used in making this game. Platform targeted and expansion consideration.
- **Game features**. Describes game mechanics. What ‘point and click’ adventure *is*, how we see it.
- **Game story**. This is the chapter with pictures. Describe in detail all game levels and interaction. A walkthrough if you like. What is described in this chapter is what is going to be made. No more - no less. No feature crawling allowed.
- **Game tasks**. All tasks that (yet) need to be done with time estimates. Including testing and all we can think of. Project plan for few engineers/ modelers with costs.

1.1 Introducing Level Editor

Level Editor is tool for making game levels. It will be used to make “Dwarven gold”. Level Editor can be used by anyone, it does not require advanced computer knowledge or programming, it’s like playing a game. Currently at version 0.8, Level Editor can be used to:

- create squary dungeons,
- lay about 3D models,
- fill containers with pickable items,
- add NPC characters and dialogs,
- add monsters,
- create particle effects: fire, smoke, magic fields,
- add doors, levers, triggers, traps,
- choose music and sounds for level
- make transitions between levels

Created levels are saved in xml format and can be loaded in game. They are ‘ready to play’ complete with music, animations, and interaction.

Level Editor has small base of 3D models it works with, thus variety of levels is limited. If you want to add new object you have to create 3D model using 3D modeling software like Blender, and then add it to Level Editor. Level Editor can not be used to make 3D models.

“Dwarven Gold” will have total of 8 levels. It is a small game, but with light puzzles should be able to fill in afternoon. These 8 small levels will be easy to layout in Level Editor, but difficult part will be to create additional quality 3D content.

Level Editor is planned only for internal use and it is not user friendly. So there are tutorials written to help new members learn how to use Level Editor.

2 Requirements

I need your clothes, your boots and your motorcycle.

Here we specify the platform and software to be used with development, as well as final product playing requirements.

2.1 Hardware Requirements

Game will be built and distributed for Windows PC platform only.

Game is not intended for gaming platforms such as PS3 and Xbox, and can't be ported to these because of point and click nature.

It is possible to port it to Linux and MAC PC, but it is not par of the initial plan.

It would also be interesting to port the game for touch screen phones like Android and IPhone, because irrlicht is already ported to these devices, but game would have to be modified to fit touchscreen input.

Game will not require shaders, so it will be playable on oldest 3D graphic cards. Use of irrlicht and lowpoly models should ensure minimal configuration:
CPU: Athlon 1700MHZ
RAM: 1GB
Graphic card: with 128MB RAM.

The development platform requirements are not very different from playing requirements. Game will be developed in Visual Studio 2010 Express, so it is recommended to use computer on the higher end of performance scale:
CPU: Dual Core 3000MZH
RAM: 2GB

2.2 Software Requirements

OS of choice is Windows XP. Dying, but still kicking.
Windows 7 will also be supported.
Other OS might be included after the initial release.

Development will be done with Microsoft Visual Studio 2010 Express. This is free version. Other developer might create Code::Blocks, Eclipse or other project environments if they feel more comfortable with them.

Game will be stored at online repository, at Google project hosting:
http://code.google.com/p/leonline/
One can use Tortoise SVN to download and check in the code.

Text editor will be Notepad++ (freeware).
Image editor will be Gimp (freeware).

3D models will be edited using Blender 2.5 and CharacterFX (freeware).
Free 3D models will be downloaded from www.turboSquid.com and similar sites.
All artists modelers will be mentioned in credits and we will try to contact them once game starts to take shape.

Project member's communication will be supported via Skype, Gmail, Issue tracking system on Google project, and Google group will be created.

3 Features

They crawl up on you.

This chapter describes how game will work and what it will look like. It will also mention what will NOT be implemented and why.

3.1 Game genre

"Turtle Tuki Adventures 2: Dwarven Gold" will be 3rd person RPG game. When we say 3rd person, it means camera is above playing character and following it in bird's perspective (think Baldurs Gate). When we say RPG it means dungeons and secret walls and levers. There will be character level progression but with simplified attribute system. There will be monster fighting but occasional and not very challenging. Focus of gameplay will be solving puzzles with item interaction (think Monkey Island).

Small turtle is the main character. There will be no option to choose the character in the beginning, or to customize character appearance, like most RPG games offer today. Player can only choose Turtle Tuki.

3.2 Main Menu

When the game is started player is presented with main menu buttons:

New Game – starts playing intro movie and then loads the game
Load Game – loads previously saved position
Options – Configures graphics, sound and controls.
Credits – list all people involved and all the artists who shared models
Exit – kills the game

Main menu might have animated 3D background much like Turtle Shepherd did with little turtle on the green hill. I think we could have the dwarf figure idling in the main menu screen.

3.3 Intro Movie

When player selects “New Game” from Main Menu, intro movie starts. This movie will be created in the engine of the game. It will tell the story of young turtle who worked as the sheep keeper, lost his job and decided to go to adventure.

The movie renders the first game level as background scene and there is text sliding across the screen telling the intro story. Player can quit the movie at any time by pressing the ‘SPACE’ or ‘ESC’ keys, and first game level will be loaded.

3.4 Game Levels

Game levels are described in more detail in following chapter, but this chapter describes design features common for all game levels.

Game level is seen from birds perspective, camera can be zoomed in or out and yawn (pitch?) can be adjusted to some degree (camera angle goes between 250 and 300 degrees). Moving the mouse does not move the camera.

Player is using mouse pointer to click around. When player clicks on the ground, turtle moves to that position and camera is following the turtle. Player can click anywhere on the map, if he clicks on the ground turtle will move to that position, if he clicks on some 3D object interaction will depend on object type:

- Pickable items are small objects that are moved to inventory when clicked.
- Trigger items are part of the scene, but they offer some sort of interaction.
- NPC are live animated characters who want to talk to you.
- Monsters are live animated characters who want to eat you.

Pickable items can be:

- Consumable, like potions and food. Right click on item in inventory makes the turtle trying to eat/drink it. Of course, if the item is an armor plate, it will notify the user that this item can not be used in that way.
- Equipable, like shoes and hats and armor plates. Not used in this game due to known turtle aversion to clothes.
- Usable against some other object on the map. Yes that means player can take the object from the inventory and click with it anywhere on the map – producing various outcomes, both witty and dull.

Triggers are objects on the map that can be clicked to produce some effect. Doors are triggers, meaning that player clicks on them and they open in response. Or not if they are locked. Then there are levers, and traps, and chests and healing fountains and what not. If it gives interaction on click – it is a trigger.

NPC – the talking folks. Not much used in this game, but there could be one or two standing around giving some info or items to player.

Monsters are going to inhabit some of dwarven chambers but the fight will not be primary game activity. I think it will be even more exiting to run into monsters after few calming strictly point and click levels. Player will go: “Hey this is puzzle type of game, let’s relax and find out how to unlock this door.” And then at some point he encounters army of angry mutated ants! “Wait! What is this? How do you fight in this game? Where is the fire key?”

Well, the combat system is going to be simple. When you hover a mouse pointer over monster, it turns into sword indicating you can hit the enemy. Clicking on the monster will cause Turtle to byte attack. Turtle byte deals random 4 – 10 hit points of damage. Average monster holds 20HP of health. So you need about three lucky hits to kill a monster. Weather the attack was successful is determined comparing attack and defense scores. Turtle attack is random number between 5 - 20. Monster defense is 10 – 15. If Turtle ‘rolls’ bigger number then monster rolls defense, attack was a hit.

There is time pause delay between two turtle attacks, so clicking the mouse at high rate will not have better effects. It is a real time fight, not turn based.

Monster AI will be simple, if turtle approaches them, they attack. They follow the turtle and attack until they kill or get killed.

Game levels will be squary. This is because I don’t have time for modeling, and can’t create whole levels in 3D modelers. I created few squary corners, and I can lay out them like cubicles. They snap in place on the grid of Level Editor and dungeon rooms and hallways are easily created.

Player moves between levels using stairs, holes, teleports and such. When player finds stairs to next level, simple click will cause new level to load. Same goes for holes, teleports, doors and other possible transporting objects. Only one level is loaded at the time.

Save/Load functionality will be implemented using only one slot. That means you can save one position in game, and next time you want to save you have to overwrite existing saved position. It is not going to be a big problem in the game with only 7 levels.

3.5 Game GUI

Inventory is visible in the lower part of the screen. Inventory only has 8 slots and it’s fully visible. There is no sliding inventory with tabs and lots of space. Eight

slots are enough for this small game. Hovering above item in the inventory shows popup screen with info about the item.

On the lower right is console with text information from game like: “Door is locked.” Info text usually floats on the screen as well, but player can use console to find older messages or the ones he missed to read.

Game GUI will have Options button that opens small menu with options:

- Exit
- Save
- Load
- Format C:

It would be nice to have some kind of border around the screen but it is not obligatory, and I would use it only if 2D designer comes up with something really nice.

GUI will not have usual character window which displays equipment and stats.
There will be no map window either.
No compass either.
And no journal.

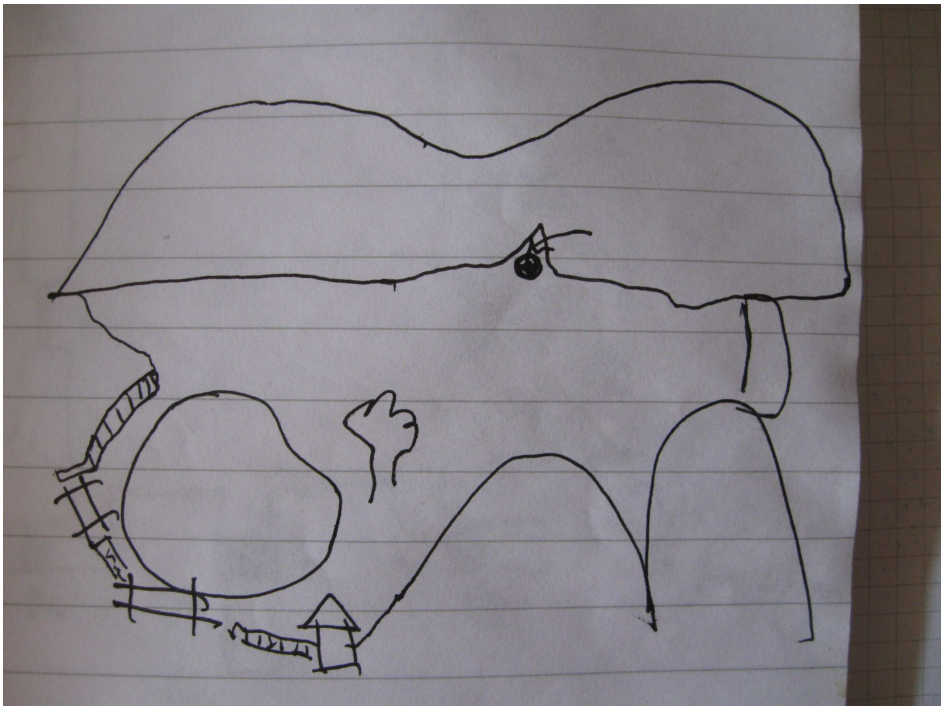
4 Game Walkthrough

Major spoiler…

This chapter describes each game level. Drawings are representing ideas that should be created in 3D (3D-alized) using Level Editor.

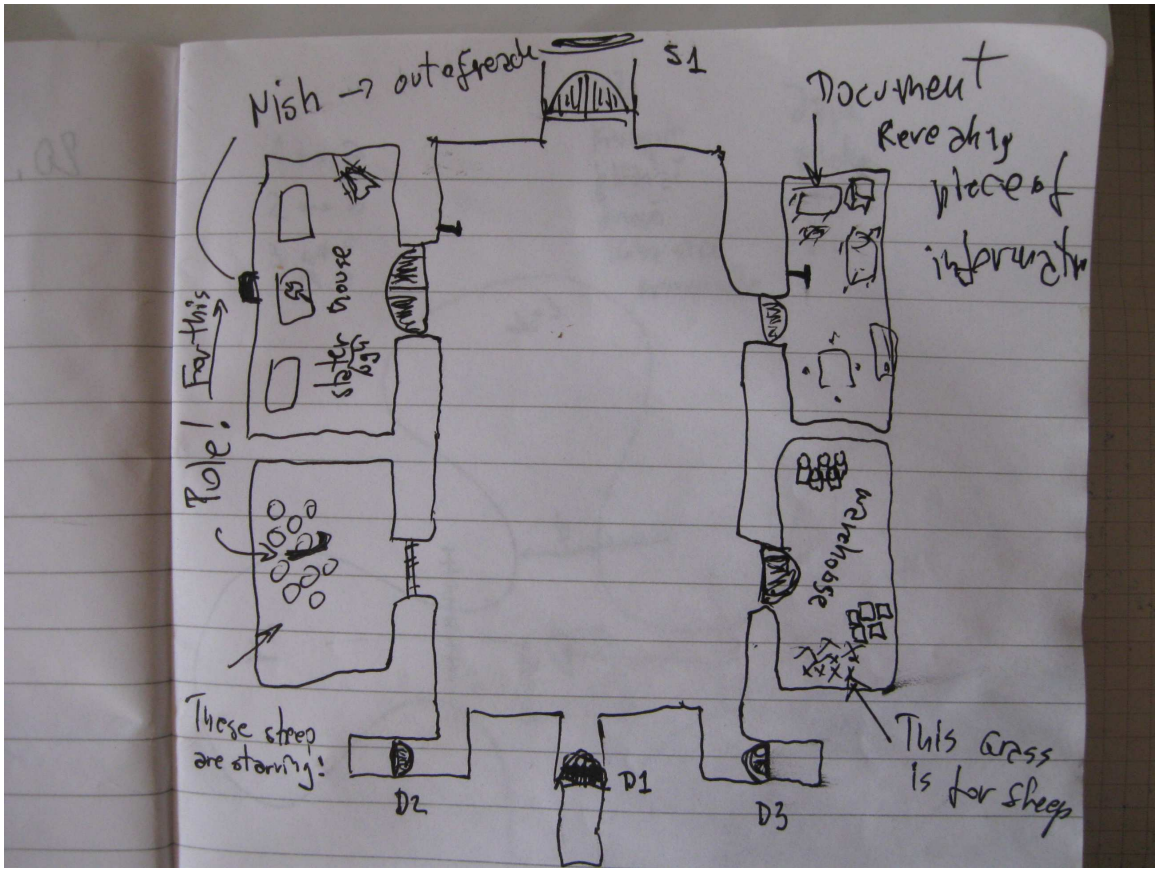
4.1 Level 1 – Sheepish planes.

This level is basically the replica of Turtle Shepherd game level. Game starts on the plane where Turtle was battling dwarfs to keep the sheep. There are no dwarfs now and 20 sheep are chewing peacefully. Player can walk around this level but can't go far because steep cliffs are blocking his way. Player can only move in one direction from there – he can go underground to the realm of dwarfs. He founds a hole in the ground under the hill, and click on it will take him to another level.



4.2 Level 2 – Dwarven hall of entrance

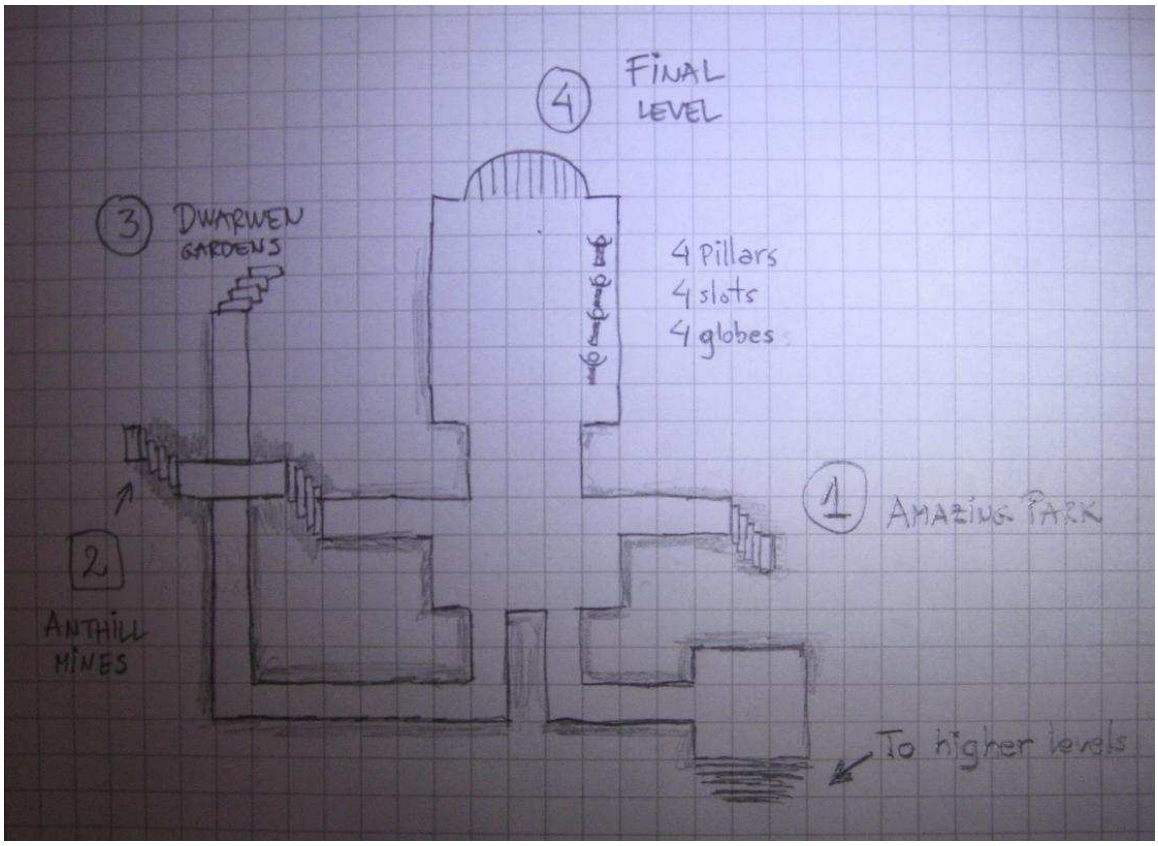
When player goes underground, he finds him self in deserted dwarven quarters. There are three ~~teleports~~ holes (D1, D2, D3) that get him back on the surface, in the sheepish fields. There are four rooms in this level and one locked gate (S1).
Room 1 in the lower left has hungry sheep in there. Entrance is closed with fence that is easily opened on click. Sheep are starving and you need to feed them. When player feeds the sheep, they move and reveal long stick on the floor that can be picked.
Room 2 in the upper left is slaughterhouse; there are blood and sheep skins around. Door to slaughter house are easily opened with lever on the side. In this room there is axe on the table and a key that is out of reach. Key can be reached with the long stick.
Room 3 in the lower right is warehouse. There is grass in warehouse that can be used to feed sheep. Its door are closed and locked. Player can force open warehouse door with an axe found on the table in the slaughterhouse.
Room 4 has bed and table and chairs and cabinet. Its doors are locked and can be opened with a key found high in the slaughterhouse. Once inside, player can use lever to open gate S1 to continue on.



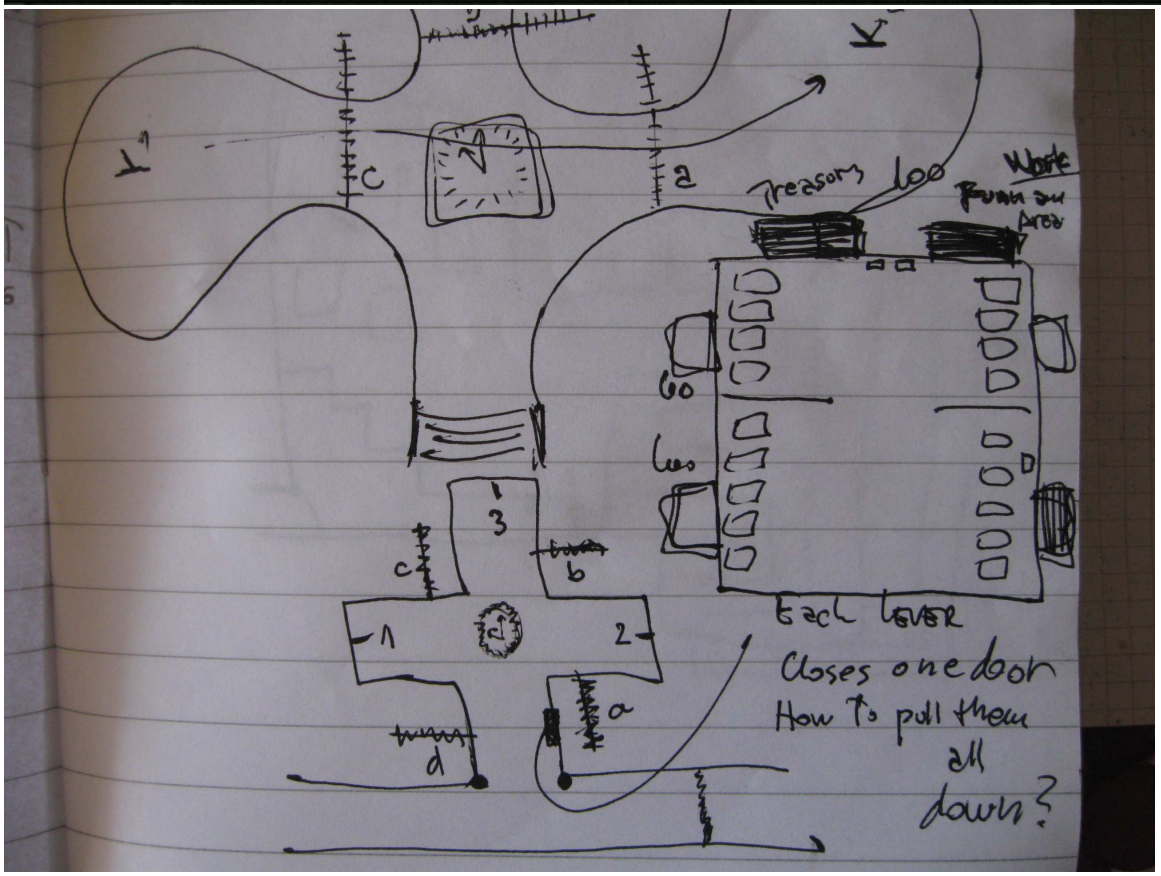
4.3 Level 3 – Dwarven crossroad.

Level 3 is like a crossroad; player can go to three new levels from there, and 4th path is blocked until he collects three magic globes. There are 4 pillars in one room and only one magic globe. Player needs to find other three globes to open the door to final level! There are three stairs on this level:
- Stairs 1 lead to “Amazing park” (Level 4)
- Stairs 2 lead to “Anthill mines” (Level 5)
- Stairs 3 lead to “Dwarven Gardens” (Level 6)

When all 4 globes are placed on 4 pillars, big door are opened to the final level 7.

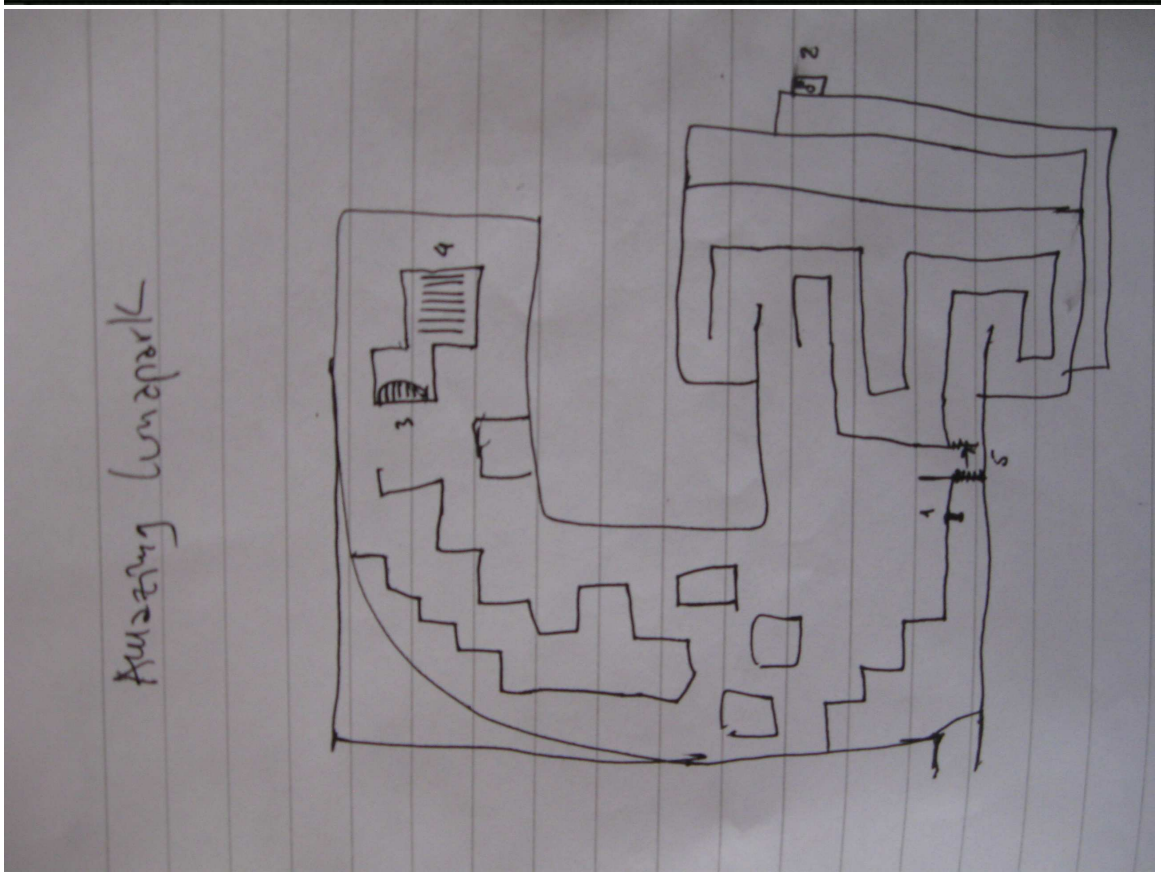


This level has one puzzle that can be fitted before entrance to the treasury. This idea came later so is not depicted in previous picture. Puzzle is simple: three levers, and each closing one door. Player has to pull them all down. When he pulls down lever 1, door to the lever 2 will close and he will not be able to reach lever 2.



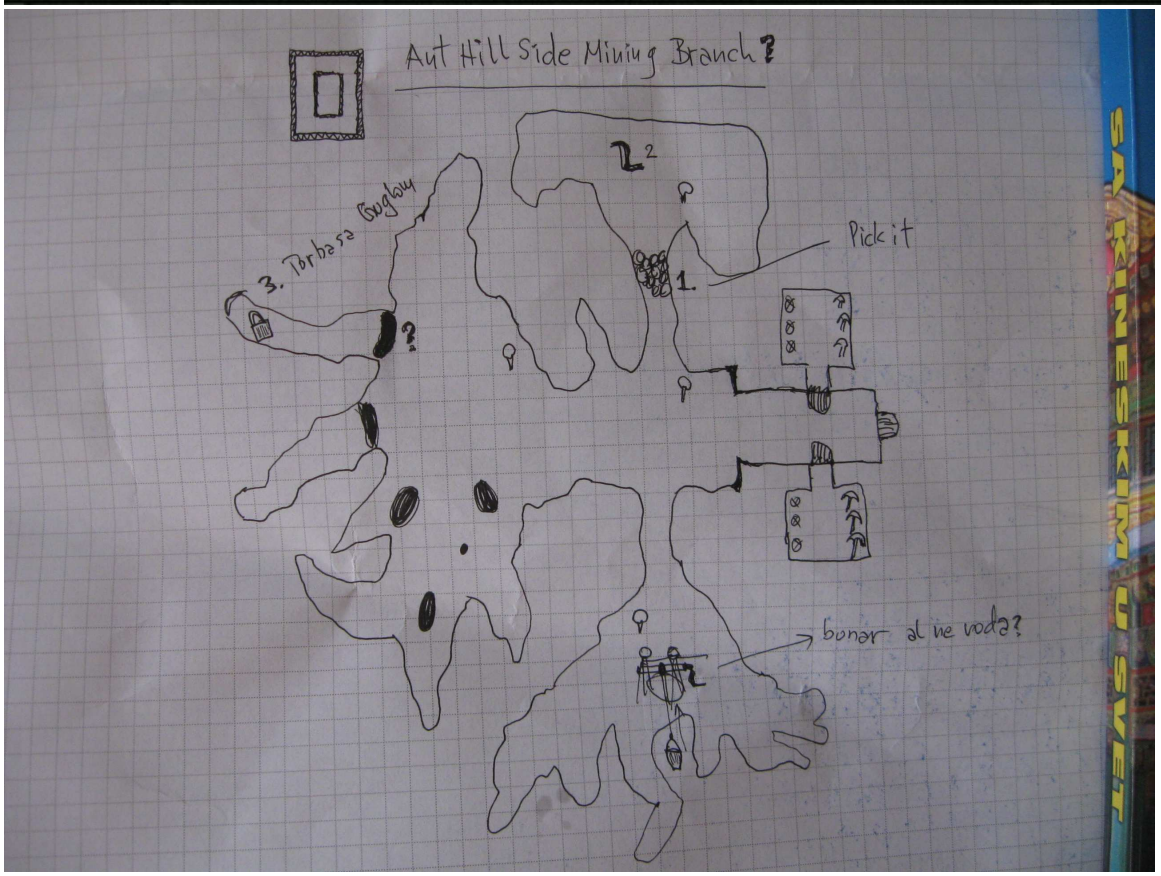
4.4 Level 4 – Amazing park

Really tricky level, it's a maze, and its shaped like letter 'G'. A maze in G, so to speak. Amazing park is holding one locked door, and one little key that must be found. Once player enters the maze, door are locked behind him so he can not go back. Its just something dwarfs like to do in the free time. In the maze, player can find the magic globe, the key in the niche, and open the locked door and teleport him self back to Level 3.



4.5 Level 5 – Anthill mines

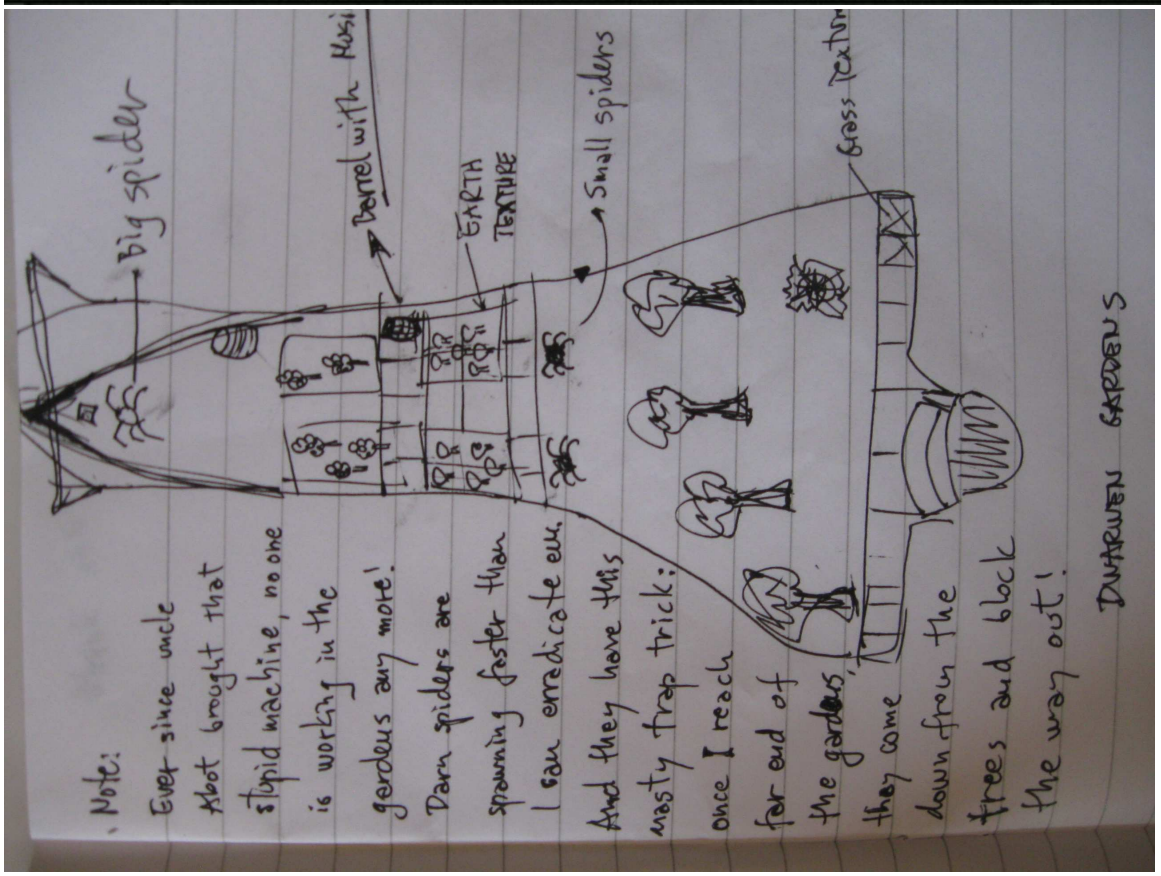
This level is actually mine digging site, infected with oversized mutated ants. Its where the fight begins. Image below is drawn with non squared pattern, but if turns out to be too complicated to make, it may fallback to squary design.
There are three branches:
Upper branch is blocked, so player needs to pick it to enter it. There he finds a crowbar (2) on the floor.
Lower branch has well that is covered with planks. Crowbar can be used to loosen one plank and pick it up.
Left branch has holes in the floor. Plank can be used to cross one hole and get to the backpack containing second magic globe!



4.6 Level 6 – Dwarven gardens.

Dwarfs like vegetables, but they don't like surface. So they built one deep cave that gets little sunshine from high above and used it as a little garden. There are high pine trees there, and fields with mushrooms and flowers. And spiders yes, lots of poisonous spiders!

No puzzles here, just spiders and one big spider in the far corner which holds the third magic globe!



4.7 Level 7 - Finish

Last level reveals what happened to the dwarfs. This level will remain secret even in this document.

5 Tasks

Hopefully not all done by me!

List of task lists all that needs to be done to finish and distribute the game. Tasks are organized loosely in proficiency categories:

5.1 Programmer tasks

- **String internationalization**. Action strings info, dialog nodes, hardcoded strings. Make xml string map. Id - value. Make language selection variable and gui setting.
- **Lights**. Add light source in level editor.
- **Particles**. Make particle fire.
- **Game Gui**. Remove unused Gui. Beautify and organize GUI.
- **Intro Screen**. New. Load. Credits. Exit. Options. Intro Animation…
- **Reorganize scripting system**: Condition goes above Action.
- **Various Features**. ESC to kill windows.
- **Bugs**. Save/Load. Camera through.
- **Program Installation**. Copy all files. Install Visual Studio redistributable. Language selection.

5.2 3D Modeling tasks

- **Creating models**. With Blender or other free tool. These models needs to be created (or downloaded for free):
  - Sheep skins in slaughterhouse.
  - Grass piles.
  - Crates.
  - Magic globes and their holders.
  - Sacks.
  - Anthill mines.
  - Gramophone.

5.3 Sounds

Sounds can be recorded or downloaded for free from internet:

- **Recording action sounds** (lock clicks, sword clings, doors screech, chains ring, etc.)
- **Recording NPC speech and narration** (this will be funny task I imagine).
- **Recording music themes** for all levels (or one theme for all dwarven levels, and one for the surface).

5.4 2D Graphics

Game style should be unified, aiming for cartoonish looking game. 3D model textures should be cartoon like, GUI should be cartoonlike, Icons should be cartoonlike. Right now we have 3D models with realistic textures, cartoonlike characters and horrible icons drawn in paint by me. All that surrounded by irrlicht default GUI.

- **Draw GUI**. Complete GUI needs to be redesigned. There is main menu screen with intro buttons. And then there is in-game GUI with inventory, dialogs, buttons and console window.
- **Draw textures**. 3D models need redesigned textures.
- **Draw icons**. Item icons should be redrawn. I like my drawing in paint, but I like unified game style better.

5.5 Various tasks (require no expertise)

- **Downloading.** Get free content (3D models and music) from internet.
- **Credits**. Finding and contacting all modeling artists.
- **Create Levels**. Create levels using Level Editor.

5.6 Testing

- **Create testing scenarios**. Tester should follow testing scenario and verify that game behaves as expected.
- **Issue tracking system**. Testers should be instructed to use issue tracking system from Google project page to report bugs.

5.7 Distribution

Once game is finished, it will be available for download on www.mystic-peanut.com. It will be distributed to freeware/shareware download portals same as Turtle Shepherd 1. Software Robocopy can be used for this to automate the process.

- **Marketing** will include:
  - Posting topics in game related forums.
  - Getting reviews in indie game blogs
  - Facebook/Google+ posting.

  Marketing will not include paying for adds, because of lack of finance revenue. Any ideas are welcome here, but not spamming.

- **Create Game web page**. This web page should fit standardized template for Mystic Peanut projects. It has game info, screenshots, Youtube movie, comments. It should allow Facebook like, tweet and Google +1.

- **Create Teaser movie**. This movie should be created early in the development stages. It shows few good looking screens and gives hint on what game will look like and what it will be about.

- **Create Trailer movie**. This movie is created near the end of game development, once all levels are laid out, and should picture real game content. It should give more insight into the game story,

- **Create Gameplay movie**. This movie show what game looks like when you play it. It shows turtle moving around, opening doors, fighting enemies. This movie is created after game is finished to show players what they get after installing.

6 Conclusion

Small game for mankind...

Purpose of first Turtle Shepherd was just to create the game, to get the experience. It was downloaded 20000 times during three years. Purpose of this game is to increase user base, tell the world that Mystic Peanut is live and kicking, to build up and deepen the Turtle story, to set cornerstone (kamen temeljac?) for third upcoming serious RPG project, and to make new friends and associates.