# LumberJack

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# Design Document

## Genre/Play Style

This is a third-person action puzzle game. Your goal is to navigate through areas by creatively solving physical puzzles to access areas you were previously unable to.

## Plot

You play as a lumberjack named Andy. Andy has worked in the Greenwood Forest for many years harvesting lumber and maintaining the forest. He is usually the only person manning the forest on any given day, but has been known to have help some days. Over the years he has become very attached to the forest; he has hollowed out a particular tree in which he sleeps during his breaks. He considers the forest an extension of his home, which is conveniently located in the nearby town of Greenwood.

One day, while resting in his tree during his usual break, a large logging company arrives to harvest the forest. Fast asleep, Andy notices nothing. The logging company harvests a few trees, including the one containing Andy. They load their haul on a flatbed and head back to their facility. On their way back, the truck carrying Andy travels around a bend. The cord holding the trees on the flatbed snap, allowing all of the trees to tumble down the cliff and into a river. The logs float away down the river, including Andy.

Andy’s log washes into some boulders and smashes, releasing him onto shore. He awakens to find himself far away from home, and he must return to his forest to protect it from big business. This is where your journey begins.

## Core Mechanics

As a lumberjack you are very skilled at harvesting lumber and making use of it. In order to make your way across the treacherous terrain and otherwise impassable environmental traps you are required to utilize your surroundings. You can harvest trees into logs and carve the logs into usable pieces that can be arranged to build objects. The types of objects you can build depend on the situation, but are ultimately limited only by your imagination.

## Logging System Described

Trees can be cut down to harvest logs. Logs can then be carved into four basic building blocks. These building blocks can then be arranged on a grid and tied together using reeds to make larger items, such as a bridge, a ladder, a wall, etc. Below is a breakdown of the items.

|  |  |
| --- | --- |
| Item | Information |
| Tree | Between 40 – 80 logs |
| 2x2x2 Block | Costs 4 logs |
| 2x4x16 Plank | Costs 10 logs |
| 2x2x8 Rod | Costs 6 logs |
| Small Disc | Costs 3 logs |
| Large Disc | Costs 5 logs |

Items are arranged on the Build Grid in order to be assembled into usable objects. Other items, such as leaves, twigs, and mud, can be used to strengthen the objects, but Blocks, Planks, Rods, and Discs are the primary building blocks.

# The Building System

The building system will be accessible to the player by right clicking on an open area of ground and selecting “Build Here” from the radial menu. This will open the Build Grid, pausing actual game play until the player has finished assembling their object,

The grid will be a maximum of 10x10 to limit the size of an object. In this grid, players can select from their available inventory of Blocks, Planks, Rods, and Discs. The user can drag and drop these items onto the grid and rotate them by 45 degree increments, laying out a pattern of any object they wish to build. In order to connect objects the player must use reeds to tie them together, which are available in abundance throughout the game. Any objects that still need to be connected will be highlighted in red, and objects already connected are highlighted in green.

Once the use has built their object and wishes to save it for later use they can select Finished Building on the bottom of the screen. At this time the item they just built will be placed in their inventory under Completed Objects. To use a completed object a player must select it from this list. They can then drag and drop it anywhere in the world, within a reasonable distance of their character. The object then responds like any other solid in the game, reacting to collision with the player and taking damage from the natural environment.

It is through the use of this inventive system that the player can build items that help them traverse the world. These items include bridges, wagons, ladders, plugs, and walls. However, the number of items that can be created is limited only by the player’s imagination.

## The Player

Andy behaves like any regular person and can be tired out and get hungry. This game is a non-physical game, so there is no need for health or strength.

## Energy

This represents how long your Andy will stay awake. When this meter is depleted, Andy will simply fall asleep where he stands. Try to get Andy to bed before this meter runs dry. Sleeping will replenish this meter, and once Andy is asleep he will not wake up before the meter is at least half full. This meter will reduce faster if you are hungry or if you are very fatigued, and slower if you are not exerting yourself and full.

## Fatigue

This represents how much you are exerting yourself. The more you exert yourself, through harvesting lumber or running, the faster your will reduce your energy meter. This meter, when maxed out, will not stop your from continuing a strenuous activity but will drastically reduce your overall energy. BE mindful of how fatigued Andy is.

## Hunger

Andy needs to eat just like anyone else. If Andy is hungry he will get fatigued more quickly. If he is full he will not fatigue as fast. Food can be found throughout the game in forms of vegetables and animals. Creating traps for animals or simply taking fruit from a tree can harvest them.

## Inventory

The following items are displayed in your inventory screen, which is accessed by selecting the ‘Inventory’ button on screen.

Logs: The amount of unrefined logs you have. These, when refined, become usable building blocks for larger objects.

Map: A map of the surrounding area, helping guide your quest.

Refined Products

* Blocks
* Planks
* Rods
* Small Discs
* Large Discs

Other Products

* Reeds: These are used to tie building blocks together, binding them and making them usable.
* Other
  + Leaves
  + Hay
  + Twigs
  + Mud
  + Rocks
  + Etc.

## Control Scheme

This game will be played through a point-and-click control scheme. The user can left click anywhere in the world to make Andy walk there. Holding shift while Andy is walking will make him run, but this will make him more fatigued. The following interactions are available as a radial menu.

|  |  |
| --- | --- |
| Item that gets right-clicked | Elements in Radial Menu Popup |
| Ground | Build Here  Walk Here  Run Here |
| Tree | Harvest Logs |
| Reeds | Gather Reeds |
| Other harvestable materials | Harvest |
| Ladders | Climb |
| Build Screen | |
| Any grid space | Place X (X = any object in user inventory) |
| Any space occupied by a block | Tie to... (changes build mode to tie mode, where the users next selection must be an object that can be tied to the currently selected object. A line will be drawn from the selected object to the mouse cursor to indicate this to the user.) |
| Any resource located on the side of the build grid | Grab |
| Reeds | Tie… (User selects one object, then another, and if they can be tied together, they will be) |
| Other objects | Use (depends on the object) |