

## Part 1: Design Documentation

### **Scenario: Theme zombie apocalypse at Michigan Tech, need to escape**

#### List of Rooms / Areas:

1. Wads
  - a. Starter area
  - b. Has a jacket in it
  - c. Has a knife - need to go into any buildings otherwise you die
  - d. Note that says need to go to top of mount ripley for helicopter
2. Tech Trails
  - a. Building but you need a key to open
    - i. Skis
3. Walker Lawn
4. Doughlas Houghton Hall
  - a. Has Bmac in it - have to answer a question/riddle to leave
  - b. You get shovel if you solve braden riddle
5. Outside by Husky Statue - Plaza
6. Under Husky
  - a. Need snow shovel
  - b. Has Joe down there
    - i. Need to bribe him
  - c. Brings you to mont ripley
    - i. Get joes car keys and drive to mount ripley - only have a little gas
7. MEEM
  - a. Has zombies - need weapon
  - b. Zombie sounds coming out of it
  - c. Has a code
8. Rekhi
  - a. Weapon - ray gun
9. Administration building
  - a. Has key to tech trails
  - b. Need a code to get into admin
10. Roza
  - a. Has zombie concert in it

- b. Enter you lose - unless ray gun
    - c. Has a cello
  - 11. Ski hill - Mount Ripley
    - a. Need snowshoes to access unless die
- Lose condition -
- 1. Don't pick up jacket in wads and go outside
  - 2. Roza you die - zombie concert - go in without ray gun
  - 3. If you go in MEEM without ray gun you die
  - 4. Run out of gas
  - 5. Go to mount ripley without snowshoes
  - 6. Go into DHH without knife
  - 7. Go into Rekhi without knife
  - 8. Go into Admin without knife
- Win condition -
- 1. Get to top of mount ripley and have a helicopter pick you up
- List of Items-
- 1. Jacket
  - 2. Knife
  - 3. Note
  - 4. Cello
  - 5. Shovel
  - 6. Snowshoes
  - 7. Skis
  - 8. Raygun
  - 9. Code
  - 10. Key
  - 11. Salsa

Room Name	Description	Requirements to enter / not die immediately	Starting Items	Special Occurrences	North	East	South	West
Wadsworth Hall			Jacket, Knife, Note		Walker Lawn		Tech Trails	
Tech Trails		Jacket	Snowshoes	Unluck building with gold key to get snowshoes	Wadsworth Hall			

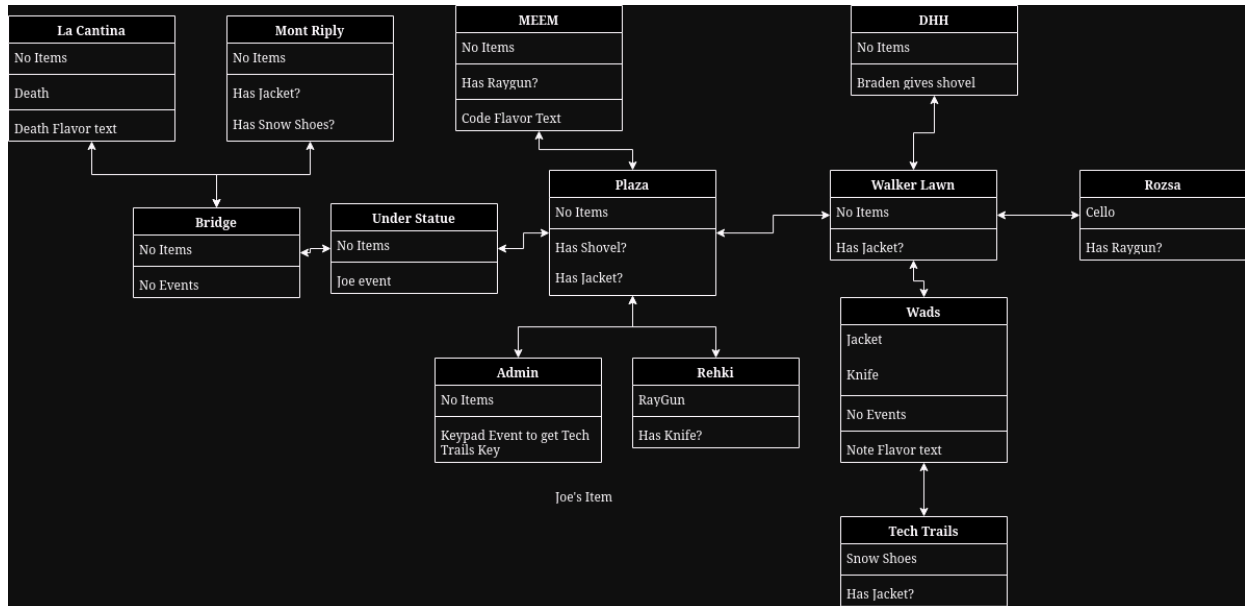
Walker Lawn		Jacket			Douglas Houghton Hall	Roza Performing Arts Center	Wadsworth Hall	Plaza
Douglas Houghton Hall		Knife or Ray Gun	Snow Shovel	Talk to Braden and answer riddle			Walker Lawn	
Roza Performing Arts Center		Ray Gun	Cello	Zombie Rock concert				Walker Lawn
Plaza		Jacket		Jump below husky statue	MEEM	Walker Lawn	Rekhi	Administration Building
Under Husky Statue		Snow Shovel	Car Keys	Talk to give him thing as bribes Joe and get his keys				
Administration Building		Knife or Ray Gun	Gold Key	Enter code into Keypad then it gives Gold key		Plaza		
MEEM	Include code	Ray Gun		Gives you code somehow			Plaza	
Mount Ripley		Snow Shoes, Car Keys		Get picked up by helicopter and win				
Bridge				Can die by zombies		Mount Ripley		La Cantina
La Cantina				Die because you run out of gas				

#### Fatal Paths

- Go north
- Go south
- Grab jacket, go north, go west
- And many more

#### Victory Path

- grab Jacket, grab Knife, GO North, GO North, Correct riddle answer (chips), grab Shovel, GO South, GO west, go south, grab ray gun, go north, go west, enter code 59923, grab key, go east, go east, go south, go south, grab snow shoes, go north, go north, go east, grab cello, go west, go west, use shovel, go down, go west, go east



# Save File Spec

The specifications for the format of the save files.

The save files are new line delimited. Blank lines will be skipped. There are two types of values which are stored in the save files: Simple and Complex.

Simple values are values whose Java type is a String (example: name) or whose Java type can be found from their name (example: current room is found using a lookup table whose key is the name). These values have a type string for clarity.

Complex values are values which have multiple fields. (example: Item has a name and description). Complex values have their components broken down into multiple strings, each String is on a separate line. Complex values have a type string which precedes the values of the object which indicates its type.

Some values are also lists, which means they may occur more than once. Values which are not lists are overwritten so that the final occurrence in the value of the variable. As well, there are Map values, where each key must be unique but repeated values are permissible.

*\*Note that in the following tables, the type string is not included in the structure description.*

## Player

File extension: .psave

Field	Java Type	Type String	Structure	List
Current Room	Room	CURR	Line 1: Room name	No
Inventory	Item	ITEM	Line 1: ID	Yes

## Room

File extension: .roomsave

Field	Java Type	Type String	Structure	List
Name	String	NAME	Line 1: Name	No
Description	String	DESC	Line 1: Description	No
Items	Item	ITEM	Line 1: ID	Yes
Required Items	Map<Item, String>	REQUIRED	Line 1: ID Line 2: Message	Map
Rooms	Map<Direction, String>	ROOM	Line 1: Direction Line 2: Room name	Map
Visibility	Boolean	VISIBLE	Line 1: TRUE or FALSE	No (defaults to false)

## Item

File extension: .itemsave

Field	Java Type	Type String	Structure	List
Item definition	Map<String, Item>	ITEMDEF	Line 1: ID Line 2: Name Line 3: Description	Map

## Rooms

Wads:

You're in Wadsworth Hall, the starting point of your journey. The room feels oddly calm compared to the chaos outside. A jacket, a knife, and a note are scattered on the floor.

The note reads: "Top of Mount Ripley. Helicopter evac. Good luck."

---

**Rozsa:**

**(with gun)**

You have entered the Rozsa. It is dimly lit, with the faint sound of moaning over blaring rock music. Zombies stagger aimlessly to the rhythm, but your ray gun ensures you can pass. A cello rests on the stage, seemingly untouched.

**(without gun)**

As you step into the Rosza, a deafening chord shakes the room. Zombies notice you instantly and lunge before you can react. You meet a grisly end at the hands of the undead concertgoers.

---

**Tech trails:**

**(with key)**

You have made it to the tech trails, your key clicks smoothly unlocking the door. The room smells of dust and old wood. Snowshoes and skis are propped up neatly against the wall.

**(without key)**

You're facing an old building that reads Tech Trails. You try the door but it is locked tight. Snowshoes and skis are visible inside, but without the key, you need to turn back to wads.

**(without jacket)**

Shivering violently, you step out onto the tech trails. Determined to prove you can make it there without a jacket. The wind bites harder with every step, the swirling snowflakes beginning to feel of daggers against your skin. Soon after, the cold completely takes control, leaving your lifeless frozen body where you stand.

---

**Walker lawn:**

**(with jacket)**

As you enter walker lawn the chill bites at your exposed skin, but your jacket keeps you warm enough to press on. The open expanse of snow leaves you with few trails.

**(without jacket)**

You have entered the walker lawn, The cold is relentless. Without a jacket You shiver uncontrollably as frost creeps over your body. Darkness soon fills your eyes as you succumb to the freezing temperatures.

---

**DHH:**

**(with knife)**

You step cautiously into DHH, with your knife ready, handling any threats to come your way. A man holding a shovel grins from a corner, offering a riddle: "Answer this, and you may pass. Fail, and you won't leave..."

**(without knife)**

As you enter DHH, a guttural growl echoes in the room. A zombie leaps at you, and without a weapon, you can't defend yourself. You fall victim to its attack.

---

**Plaza:**

**(with jacket)**

As you enter the Plaza the Husky Statue looms ahead. Lines in the deep snow offer an idea that something lies beneath the husky. With just your hands you are useless against all the snow.

**(without jacket)**

Entering the plaza the wind howls viciously. Your exposed skin freezes, and you can no longer move. The cold claims you where you stand.

**(with jacket & shovel)**

Using the shovel, you uncover a hidden pathway under the statue. A muffled voice beckons you to descend.

---

**MEEM:**

**(with gun)**

You have entered MEEM, the air smells of decay, and the groans of zombies are louder now. You make your way carefully, blasting away threats with your ray gun. Amid the chaos, you find a bloodstained piece of paper portraying an encrypted code.

**(without gun)**

Entering the MEEM, the groans grow louder, and suddenly, zombies swarm you. Without a weapon, you're helpless against their relentless attack. You are soon then eaten by the swarm.

---

**Rekhi:**

**(with knife)**

Rekhi Hall is eerily silent. Your knife glints in the dim light as you push forward. In the center of the room a ray gun rests on a table, humming faintly. It may be a tool that could save your life.

**(without knife)**

You enter Rekhi hearing the shuffle of feet and low growls. Without a weapon, you can't defend yourself as zombies emerge from the shadows. They overpower you in moments leaving you lifeless.

---

**Admin:**

You enter the admin building and make your way to the key room, fending off undead on your way.

**(with code and gun)**

Approaching the admin building the keypad beeps as you input the code. The door creaks open, revealing a golden key suspended from the ceiling. You grip your weapon tightly as you scan the room for threats.

**(without gun)**

Entering the admin building, a small glint of light reveals itself on the far side of the room catching your interest. As you approach the light, lifeless hands of the undead venture out from the dark fastening around your defenseless self, leaving you to be drug into the unknown where you soon expire.

**(without code)**

Standing at the entrance of the admin building you try the door, but it's locked. The keypad blinks mockingly at you, demanding the correct input. So you return to the Plaza.

---

**Under Husky:**

The darkness is oppressive under the statue. You see Joe leaning against a Mini Cooper, his eyes sharp, hypnotically swirling his keys around his finger. "You want these keys? Then I'll need something in return," he says.

---



**Bridge:**

Crossing into Hancock, your tires meet the icy lifeless body of the Portage lake lift bridge. The marred rust enveloped bridge forces you to slink between holes, leaving any mistake to be your instant demise. Skating to a stop, you finally make it across, leaving you with 2 seemingly identical roads, one stretching West towards Hancock, and the other East to Mt. Ripley.

---

**Ripley:****(with shoes and jacket)**

The Mini Cooper sputters to a stop, running on fumes as you park at the base of Mount Ripley. The snow is deep, but your snowshoes keep you steady as you trudge up the steep icy slope. The bitter wind tears at your jacket, but it holds firm, keeping the worst of the cold at bay. After what feels like hours, you crest the summit, and the roar of helicopter blades fills the air. A spotlight locks onto you, and a voice shouts, "Don't worry buddy, we got you now!" Relief washes over you as the chopper descends, signaling your hard fought victory and escape.

**(without shoes)**

The Mini Cooper sputters to a stop, running on fumes as you park at the base of Mount Ripley. The snow is deep, and without your snow shoes the snow swallows you deeper and deeper with every step, making the climb impossible. The cold becomes unbearable, and you collapse before reaching the summit.

**(Without jacket)**

Stepping out of the car, your skin is instantly whipped by the vexed wind. As you ascend, your skin begins to crack, your vision begins to blur. With the summit in sight the cold begins to win. Plunging to your knees, you succumb to the cold, meeting your inevitable jacketless demise.

---

**La Cantina:**

Running out of gas, the Mini Cooper sputters to a stop, leaving you stranded. Peering through the blinding snowstorm you see a sign reading "La Cantina". In hopes for food and shelter from the storm you make a break for it. Entering the restaurant you are met with sheer darkness, except for a floating taco illuminating in the center of the room. Dying of hunger, you consume the taco without a second thought not realizing that the taco was contaminated with *Vibrio cholerae* bacterium, causing you to soon poop yourself to death.

## Item description

**Knife:**

A sturdy hunting knife with a slightly tarnished blade. The handle is wrapped in a warm black leather, offering a firm grip. It looks like it's seen its fair share of use.

---

**Ray Gun:**

A sleek futuristic weapon with glowing blue accents running down its barrel. Its humming energy core pulses faintly, signaling its readiness.

---

**Skis:**

A pair of sleek cross-country skis with a matte black finish. The edges are slightly nicked from previous use, but the bindings are secure, ready to carry you swiftly across the snowy terrain.

---

**Snow Shoes:**

A pair of wide, lightweight frames with tightly woven webbing. The bindings are adjustable, designed to strap securely over your boot, making them perfect for trekking through deep snow.

---

**Jacket:**

A bright pink snow jacket lined with a thick fleece. The fabric feels waterproof and windproof, with a cozy hood edged in fox fur. Despite its color, it promises warmth and survival

---

**Car Keys:**

A small set of keys trapped by a rustic star wars keychain shaped as Yoda . They jingle softly with each step.

---

**Cello:**

A traditional wooden cello, its garnish is cracked and faded from many years of use. Though it looks particularly broken, the strings are taut, and you wonder if it could still hold a tune, or a secret...

---

**Snow Shovel:**

A large, heavy-duty shovel painted a vibrant blue. Its metal blade gleams under the light, and the wide handle feels sturdy enough to clear the deepest drifts.

---

**Gold Key:**

A small, polished key with intricate engravings along its handle. It gleams brightly, as if it's been well cared for, a stark contrast to the bleakness of your surroundings.

---

**Note:**

A crumpled up piece of paper with hastily scrawled handwriting. The message is simple but urgent: "Top of Mount Ripley. Helicopter evac. Good luck." The ink is slightly smudged, as though written in a hurry, or under duress

---

**Code:**

A bloodstained piece of paper, so worn down its left side soft to the touch. A faint encrypted message is noticeable on the paper. The message reads as follows: "\$+! &+@ (-) %-# ^/@" (code 59923)

**Shovel riddle:**

Riddle-

What does a computer like to eat

answer : chips

**Joe sending you back:**

"Sorry kid, but we've got no deal today. You're missing... something" He waves his hand dismissively, and before you can protest, the world seems to twist around you. The next thing you know, you're standing back in the plaza, Joe's laughter still ringing in your ears.