

The Ballad of Gumption

Implementation & Testing

COVER SHEET

Table of Contents

Updated Design	Teacher Evaluation	Gantt Chart
/5	/10	/2
Source Code	Client Evaluation	Client Communication
/5	/5	/3
User Documentation	Reflection	Website
/5	/4	/2
Testing Report	Logbook	Total
/5	/4	/50

Client Communication Log

Note: All communication before release 1.3 was done in person, and was a summary of notes taken. Post 1.3, all data was collected through an online survey document:
<https://www.surveymonkey.com/s/QJ7XQTD>

Name	Program Version	Feedback
His Royal Excellency Jalfor	Prototype 0.1	<ul style="list-style-type: none"> - Voice over - Loading screen - Changing cursor over clickable objects
Dandolo	Prototype 0.1	<ul style="list-style-type: none"> - A character named 'Daniel' - Online multiplayer - Import music
Kapoon	Prototype 0.1	<ul style="list-style-type: none"> - No branching option - Gritty realism (pixel art) - Character named 'Andrew'
PALZMADO LE	Prototype 0.1	<ul style="list-style-type: none"> - Save files - Hint system
BB3B123	Prototype 0.1	<ul style="list-style-type: none"> - Gmod - Large menu icons - Animated characters
MyStore	Prototype 0.1	<ul style="list-style-type: none"> - Twitch streaming - Bosses
Darius	Prototype 0.2	<ul style="list-style-type: none"> - specific button clicks - pixel art good - funny dialogue
3Unit Max	Prototype 0.2	<ul style="list-style-type: none"> - instruction unclear, broke the game several times - tutorial (with plenty of handholding and visuals) - aesthetics - said he couldn't 'control his sexual urges' towards a pixelated woman - location unclear - feeling light to decent three
Field Martial Gering	Prototype 0.2	<ul style="list-style-type: none"> - keep pixel art - prototype has no 'game' - inventory should reference the art style - location time info - menu colour - menu options - maybe no animation? - 8bit music (legend of zelda)

meeeeeretz	Prototype 0.2	<ul style="list-style-type: none"> - colours are obnoxious - pixelation is a problem - tutorial
sir lancelot bb3b123	Prototype 0.2	<ul style="list-style-type: none"> - simplicity in UI - make graphics more appealing - character models are good - use music from gumption
Lawrence Cohen	1.0	<ul style="list-style-type: none"> - Found bag puzzle hard - Didn't notice counter top - Make counter top more noticeable
Daniel Brockwell	1.0	<ul style="list-style-type: none"> - Great point & click puzzles - Found spider puzzle hard - Didn't find bag puzzle hard
Daniel Meretz	1.1	<ul style="list-style-type: none"> - Art style 'lazy' - 'pretty good'
Omri Levi	1.1	<ul style="list-style-type: none"> - Really cool - Tester easily picked up puzzle concepts - Gun?
Matthew Friedman	1.2	<ul style="list-style-type: none"> - Found spider puzzle too hard - Happy with depiction of characters
Andrew Kaploun	1.2	<ul style="list-style-type: none"> - 'Decent' - Unhappy with cast - Found bag puzzle hard
Joshua	1.3	<ul style="list-style-type: none"> - Bug encountered: Felt like objects disappearing during dialogue looked like a bug. - Enjoyed Playing <p>Somewhat confusing at times, but overall, good.</p>
D.J. Brockwell	1.5	<ul style="list-style-type: none"> - No bugs encountered - Enjoyed Playing <p>Ballad of Gumption is an intriguing point-and-click puzzle adventure game laced with snippets of great comedy. Though the puzzle sequence is at times counter-intuitive and borderline illogical, it still provides a mentally stimulating journey as you frantically click through lists of options in an attempt to progress to the next part of the storyline. Furthermore, the art style is crude but nonetheless welcoming and engaging, complimenting the bizarre characters and plot lines. - 8/10, DB Magazine</p>
Larry	1.5	<ul style="list-style-type: none"> - Bug encountered: Once you got to the Sasha bit, if you entered the bathroom and then exited, it restarted that section. - Enjoyed Playing <p>Artwork is really the standout feature, which funny enough has absolutely nothing to do with programming. The puzzles were fine, but at some points the actions you needed to take seemed too obscure and not rooted in logical processes.</p>

Zach	1.5	<ul style="list-style-type: none"> - No bugs encountered - Enjoyed Playing <p>Very much enjoyed it, the art style was very amusing and creative, good gameplay and easy to play yet still an enjoyable and puzzling experience. Very good would recommend for friends of all age groups.</p>
Late	1.3 - 1.5	<ul style="list-style-type: none"> - No bugs encountered - Total score: 2 - Did not enjoy playing <p>Some dude looking for a drink and does anything to get it.</p>
RMS GNU	1.3 - 1.5	<ul style="list-style-type: none"> - Bug encountered: Product smelt funny - Total score: 4 - Enjoyed Playing <p>It was too short, It smelt funny, not enough gumption, not true to reality, to few spiders, not enough funny smells, not enough bugs (features). Most importantly not enough raspberry Pi's. https://www.google.com.au/webhp?sourceid=chrome-instant&rlz=1C5CHFA_enAU521AU521&ion=1&espv=2&ie=UTF-8#q=How+to+eat+gumption Why aren't you making a calculator?</p>
what the f***'s a pseudonym	1.3 - 1.5	<ul style="list-style-type: none"> - Bug encountered: Product was not CS-GO - Total score: 9 - Enjoyed Playing <p>Its one of those games you play on that Pc thingy mabobby</p>
weinstein	1.3 - 1.5	<ul style="list-style-type: none"> - Bug encountered: IT blocked game on their laptop - Total score: N/A - Did not enjoy playing <p>i have no idea because i couldnt play it - pingas</p>
Cheyenne	1.5	<ul style="list-style-type: none"> - No bugs encountered - Enjoyed Playing <p>It was really good. The dude should be animated though.</p>
Brad	1.5	<ul style="list-style-type: none"> - No bugs encountered - Enjoyed Playing <p>I couldn't do the spider puzzle until someone told me. Cool game.</p>
Bill the flying Duck	1.2	<ul style="list-style-type: none"> - No bugs encountered - Enjoyed Playing <p>A thoroughly enjoyable game, with absurd logic that is nevertheless followable. I can't wait for the DLCs!</p>
AK97	1.3	<ul style="list-style-type: none"> - No bugs encountered - Enjoyed Playing <p>You are Jono, an adventurer who finds himself in a bar amongst his wacky comrades, amongst them weed smokers, terrorists, and strangest of all, actors. Moallem has created a puzzle game that mocks the mundanity of life with the subversion of the tedium of bar, by twisting the ordinary world into an extraordinary sensory festival, and this is why I would like to high commend the game as a masterpiece of modern artistry.</p>

IGN	1.3 - 1.5	<ul style="list-style-type: none"> - Tonnes of bugs encountered - Did not enjoy playing <p>Didn't particularly enjoy. Bland puzzles, an uninteresting plotline and a degenerate art style. The soundtrack, however, was a redeeming factor. Highly sexist. Literally Hitler.</p> <p>10/10</p>
Weinstein	1.5	<ul style="list-style-type: none"> - No bugs encountered - Enjoyed Playing <p>if it wasnt so pixelated, would be more playable. the puzzles were cool, and i like that you added real life people.</p>
Dafydd ap Gruffydd		<ul style="list-style-type: none"> - No bugs encountered - Enjoyed Playing <p>'The Ballad of Gumption' is a point-and-click adventure game with intriguing puzzles, solid gameplay, and retro graphics (think Superbrothers: Sword and Sworcery) that are occasionally bland and vague. The first chapter of the game proved interesting, even for someone who doesn't normally like these sorts of games; the story concerns J-Mo getting a drink (and then getting accosted by his friends for various tasks). There are options for sound in-game but I encountered only silence (I'm assuming later iterations will include some kind of sound effects and/or music). Overall, this is an intriguing and entertaining point-and-clicker. As a bonus, I encountered no grammatical or spelling errors, which attests to the quality of the production.</p>

Client Evaluation

Note: Evaluations were picked from survey responses of ‘potential users’. Funny reviews and those with data missing, although hilarious, were omitted.

Doust Weekly - 9/10

Recommends game - Enjoyed it

Gameplay	10
Art	10
Puzzles	8
Total	9

“Somewhat confusing at times, but overall, good. Stuff disappeared when the dialog box appeared.”

Daniel Brockwell of DB Magazine - 7/10

Recommends game - Enjoyed it

Gameplay	8
Art	7
Puzzles	7
Total	7

“Ballad of Gumption is an intriguing point-and-click puzzle adventure game laced with snippets of great comedy. Though the puzzle sequence is at times counter-intuitive and borderline illogical, it still provides a mentally stimulating journey as you frantically click through lists of options in an attempt to progress to the next part of the storyline. Furthermore, the art style is crude but nonetheless welcoming and engaging, complimenting the bizarre characters and plotlines.”

Lawrence of Australia - 7/10

Recommends game - Enjoyed it

Gameplay	7
Art	8
Puzzles	6
Total	7

“Artwork is really the standout feature, which funny enough has absolutely nothing to do with programming. The puzzles were fine, but at some points the actions you needed to take seemed too obscure and not rooted in logical processes. Once you got to the Sasha bit, if you entered the bathroom and then exited, it restarted that section.”

Zachary Lazarus - 9/10

Recommends game - Enjoyed it

Gameplay	8
Art	10
Puzzles	7
Total	9

“Very much enjoyed it, the art style was very amusing and creative, good gameplay and easy to play yet still an enjoyable and puzzling experience. Very good would recommend for friends of all age groups.”

Cheyenne - 7/10

Recommends game - Enjoyed it

Gameplay	5
Art	10
Puzzles	7
Total	7

“It was really good. The dude should be animated though.”

Brad (Bread) Sarif - 6/10

Recommends game - Enjoyed it

Gameplay	7
Art	6
Puzzles	4
Total	6

“I couldn't do the spider puzzle until someone told me. Cool game. What is this?”

Friedman Publications - 10/10

Recommends game - Enjoyed it

Gameplay	9
Art	8
Puzzles	8
Total	10

“A thoroughly enjoyable game, with absurd logic that is nevertheless followable. I can't wait for the DLCs!”

Andrew from AK97 - 9/10

Recommends game - Enjoyed it

Gameplay	10
Art	10
Puzzles	9
Total	9

“You are Jono, an adventurer who finds himself in a bar amongst his wacky comrades, amongst them weed smokers, terrorists, and strangest of all, actors. Moallem has created a puzzle game that mocks the mundanity of life with the subversion of the tedium of bar, by twisting the ordinary world into an extraordinary sensory festival, and this is why I would like to high commend the game as a masterpiece of modern artistry.”

Weinstein - 8/10

Recommends game - Enjoyed it

Gameplay	5
Art	7
Puzzles	8
Total	8

"if it wasnt so pixelated, would be more playable. the puzzles were cool, and i like that you added real life people. why did i not feature in the game?"

David of DB rockwell - 8/10

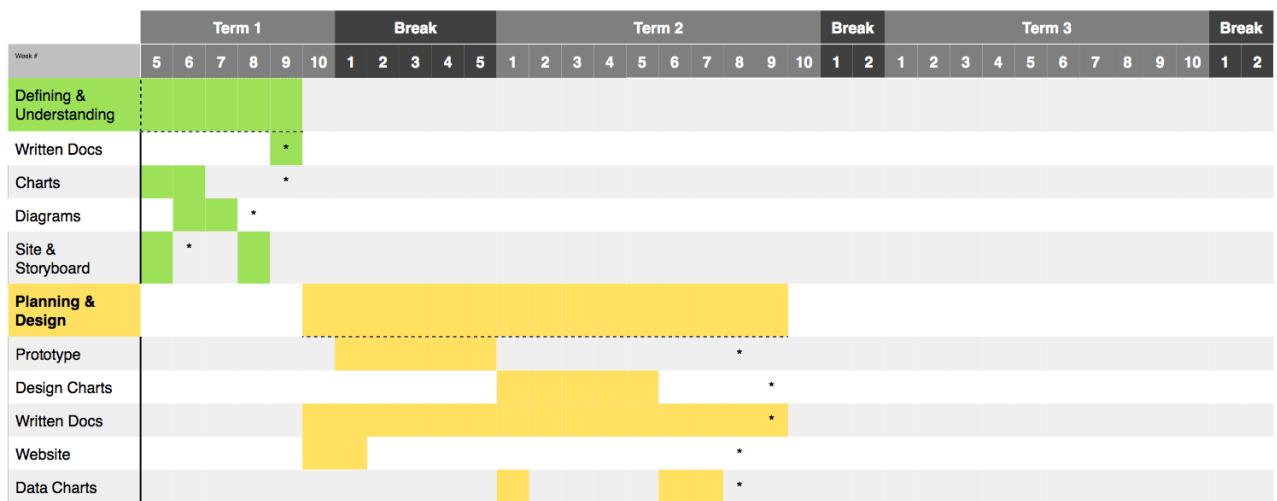
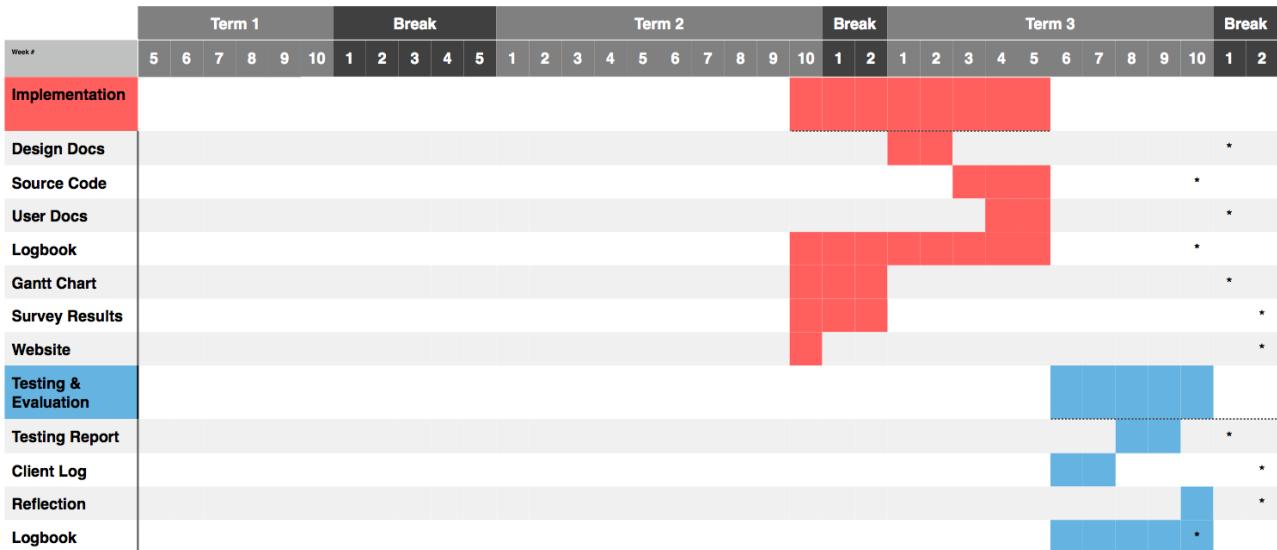
Recommends game - Enjoyed it

Gameplay	9
Art	6
Puzzles	9
Total	8

"'The Ballad of Gumption' is a point-and-click adventure game with intriguing puzzles, solid gameplay, and retro graphics (think Superbrothers: Sword and Sworcery) that are occasionally bland and vague. The first chapter of the game proved interesting, even for someone who doesn't normally like these sorts of games; the story concerns J-Mo getting a drink (and then getting accosted by his friends for various tasks). There are options for sound in-game but I encountered only silence (I'm assuming later iterations will include some kind of sound effects and/or music). Overall, this is an intriguing and entertaining point-and-clicker. As a bonus, I encountered no grammatical or spelling errors, which attests to the quality of the production."

Gantt Chart

Note: Gantt chart had two weeks added. This was changed due to a time extension on the submit date.



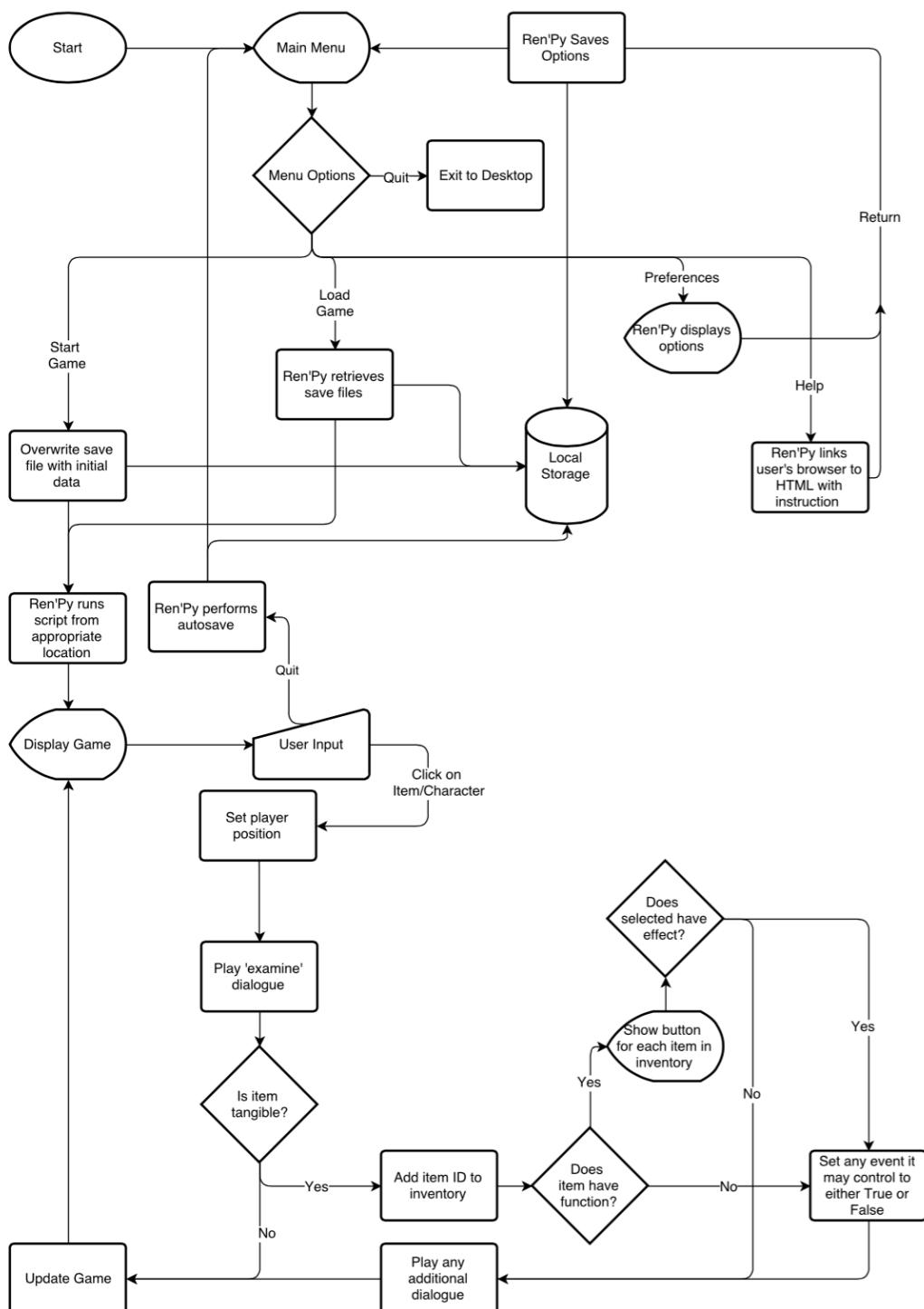
Data Dictionary

Note: Due to changing engines to Ren'Py, the data dictionary went through a complete overhaul.

Data Item	Type	Size	Format	Example	Description
mousex	Floating Point	~ 4 bytes	x.yz	4.20	A value that indicates the x coordinate of where the player is.
mousey	Floating Point	~ 4 bytes	x.yz	4.20	A value that indicates the y coordinate of where the player is.
link	String	~ 19 bytes	res/<name>	res/doustoneb.png	A piece of data that indicates the location of sprites and other files.
id	String	~ 5 bytes	<item name>	spider	An identifier that references objects and characters.
items	Array	~ 25 bytes	[x, y]	[chair, spider]	An array that contains the elements that are in the inventory of the player.
useditems	Array	~ 25 bytes	[x, y]	[chair, spider]	An array containing items that have been used.
event	Boolean	~ 2 bits	<event name>	deadspider	A piece of data that allows the game to tell whether certain events have been triggered.
image	Image (Ren'Py only datatype)	unknown	<name of image>	bar_bg	A data type that represents an image when using Ren'Py's image system.
character	Character (Ren'Py only datatype)	unknown	<first letter in characters name>	j	A data type that represents the character referenced when using Ren'Py's dialogue system (Ren'Py suggests the variable should be stored with a single letter)
loopcount	Integer	~ 4 bytes	<number>	0	A number used to control the times an even occurs.
result	Integer	~ 4 bytes	<number>	0	A number used to indicate the item clicked during gameplay iteration.
clickeditem	String	~ 5 bytes	<item name>	spider	The clicked item name for inventory use
call	String	~ 5 bytes	<call number>		2 The section of code that should be returned to after performing stage setting.
scenecall	Integer	~ 4 bytes	<number>		0 A number used to indicate to the stagehand where to return to after setting the stage.
selected	String	~ 5 bytes	<item name>	newspaper	A string that is used to indicate which use-option was selected so that appropriate events may be triggered.
spacing	Floating Point	~ 4 bytes	x.yz	4.20	A count value used to display buttons at consecutive locations.
showitems	Boolean	~ 2 bits	showitems	showitems	A boolean value used to tell the inventory display function whether to display.
scene	String	~ 5 bytes	<scene name>	bar	A string that informs the stagehand of which scene to dress for.
sudo	String	~ 5 bytes	sudo	sudo	A layer inserted into Ren'Py's layer handling system in order to override the automatic layer options. It is used to work out what order a sprite will be shown onscreen.
DLC	Boolean	~ 2 bits	DLC	DLC	A boolean value used to tell the program whether to search for additional chapters after completing chapter 1.

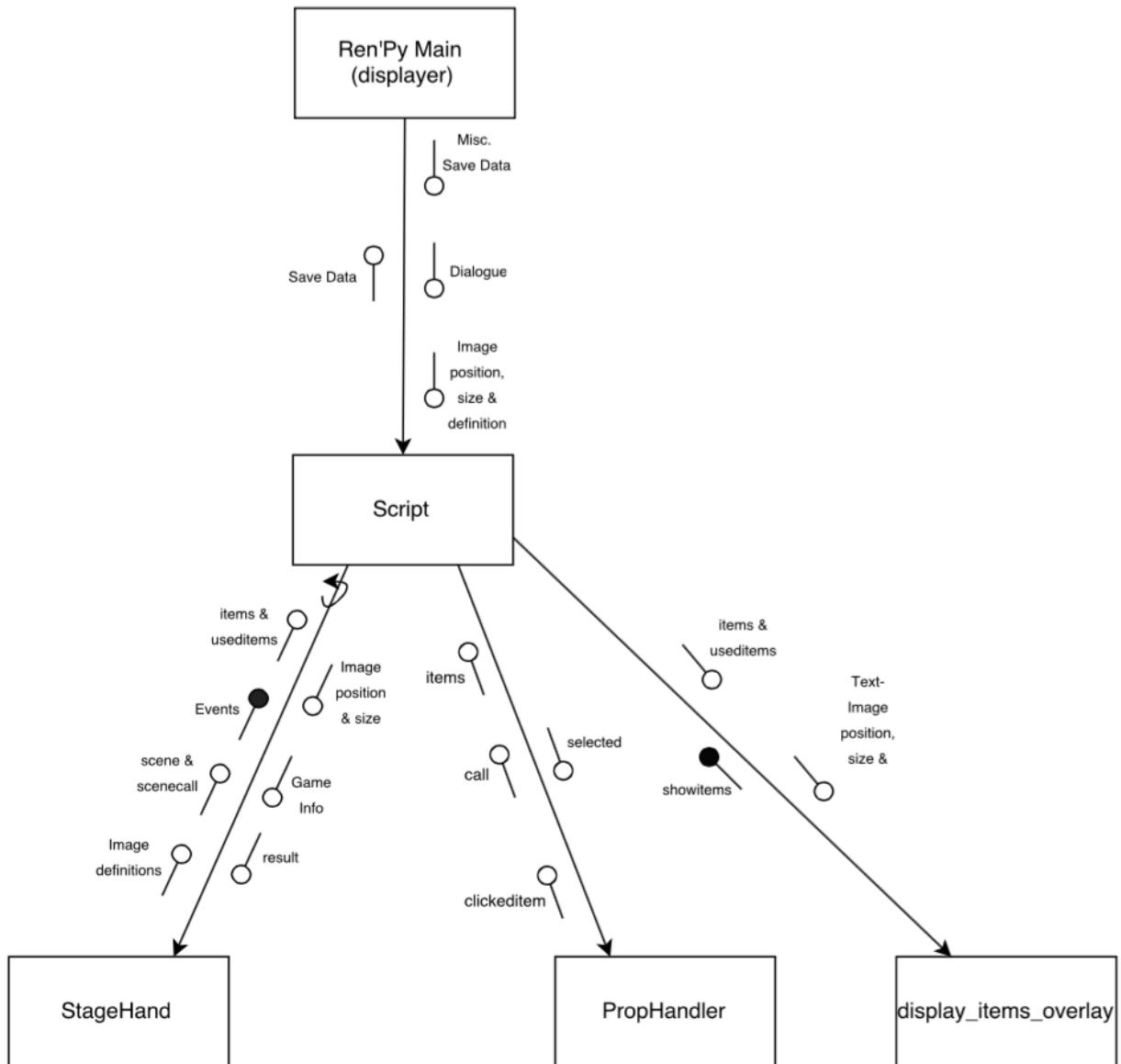
System Flowchart

Note: The only changes made to flowchart consisted of minor modifications of how items work.



Structure Chart

Note: Due to changing engines to Ren'Py, the structure went through a complete overhaul. This was mostly the fault of the very different way that Ren'Py works compared to other engines, being an engine for visual novels.



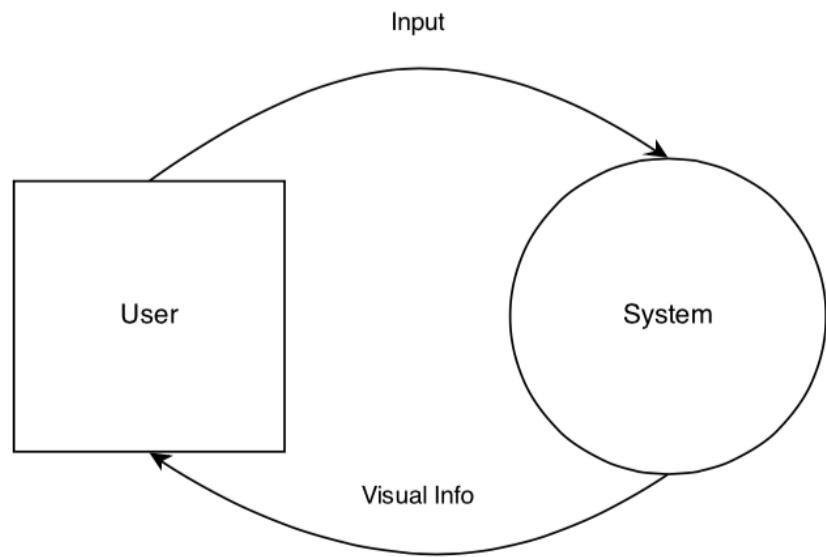
IPO Chart

Note: Due to changing engines to Ren'Py, a number of inputs no longer exist because the Ren'Py engine handles it in-engine.

INPUT	PROCESS	OUTPUT
User clicks on item a tangible item	Runs code applicable to result such as dialogue, modifying inventory, run prop handler, or triggering events	Dialogue played, open inventory select, character moved, items added and/or removed from inventory
User click on a PropHandler button	Sets selected to clickeditem and returns to script where events may trigger, or inventory might be modified	Appropriate dialogue plays
User clicks on item like smoke or back button	Runs appropriate code, removes all items from screen, jumps to code for next scene	New background displays
Scene opens	Runs appropriate code, adds all applicable items to screen, adds player to screen	Objects for scene appear
User clicks on an intangible item	Runs code (dialogue)	Dialogue plays
Press 'Start Game'	Script.rpy runs, sets variables, moves to first scene	New scene opens
Player position updates	Sets player sprite to mousex, mousey values and reposts player position	Player appears at mousex, mousey
Item is obtained	Item ID is appended to items and scene is refreshed	Item appears in inventory and item sprite disappears from scene
Item is removed	Item ID is removed from items and appended to useditems	Item disappears from inventory
Event is triggered	Event bool is set to opposite (either True or False), stage is reset	Any effects event may have take effect
User clicks on an object that can have items used on it	PropHandler is run	Buttons for each item in inventory appear on screen

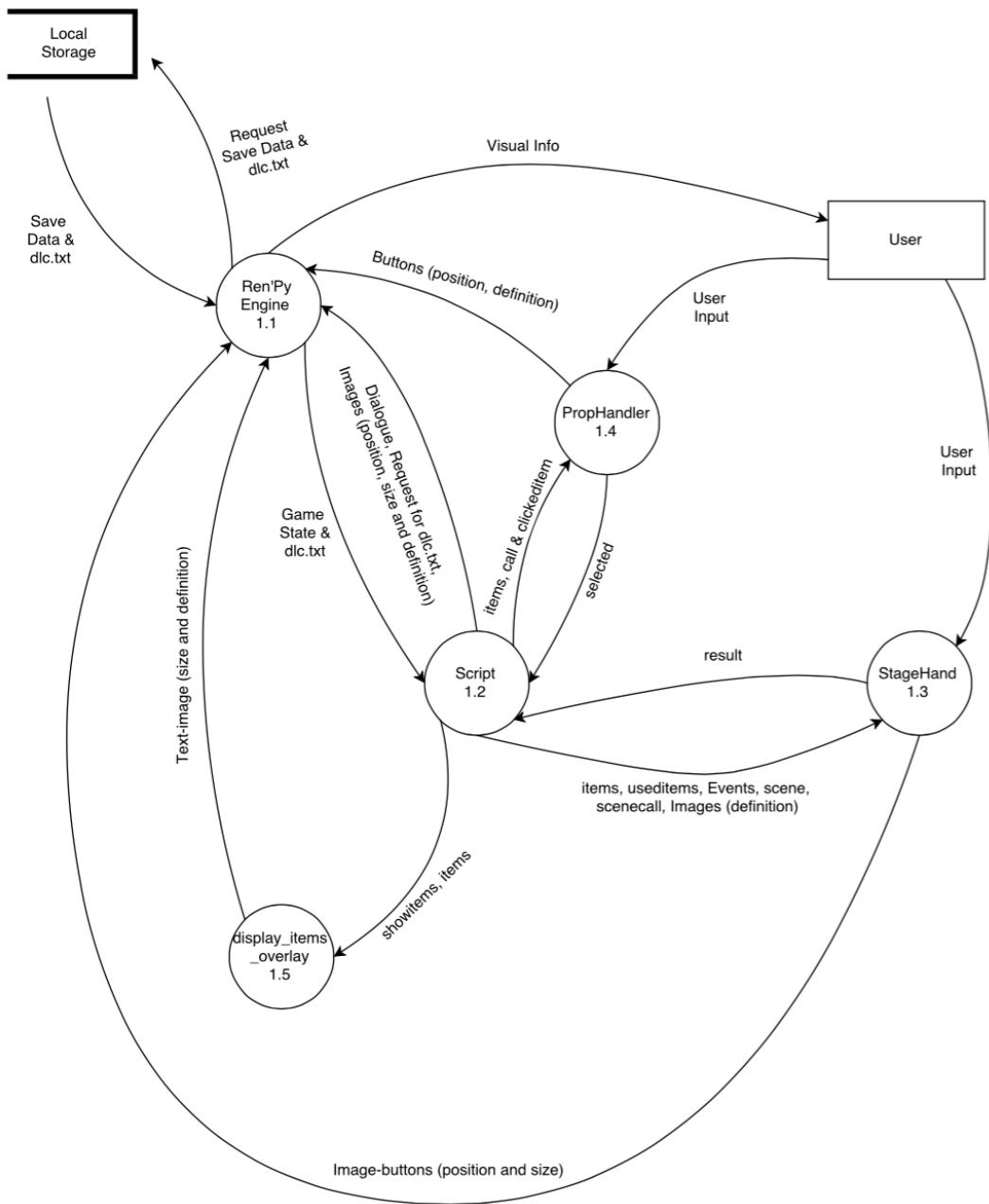
Context Diagram

Note: The context diagram is the only thing that hasn't changed. Stay true to yourself, context diagram.

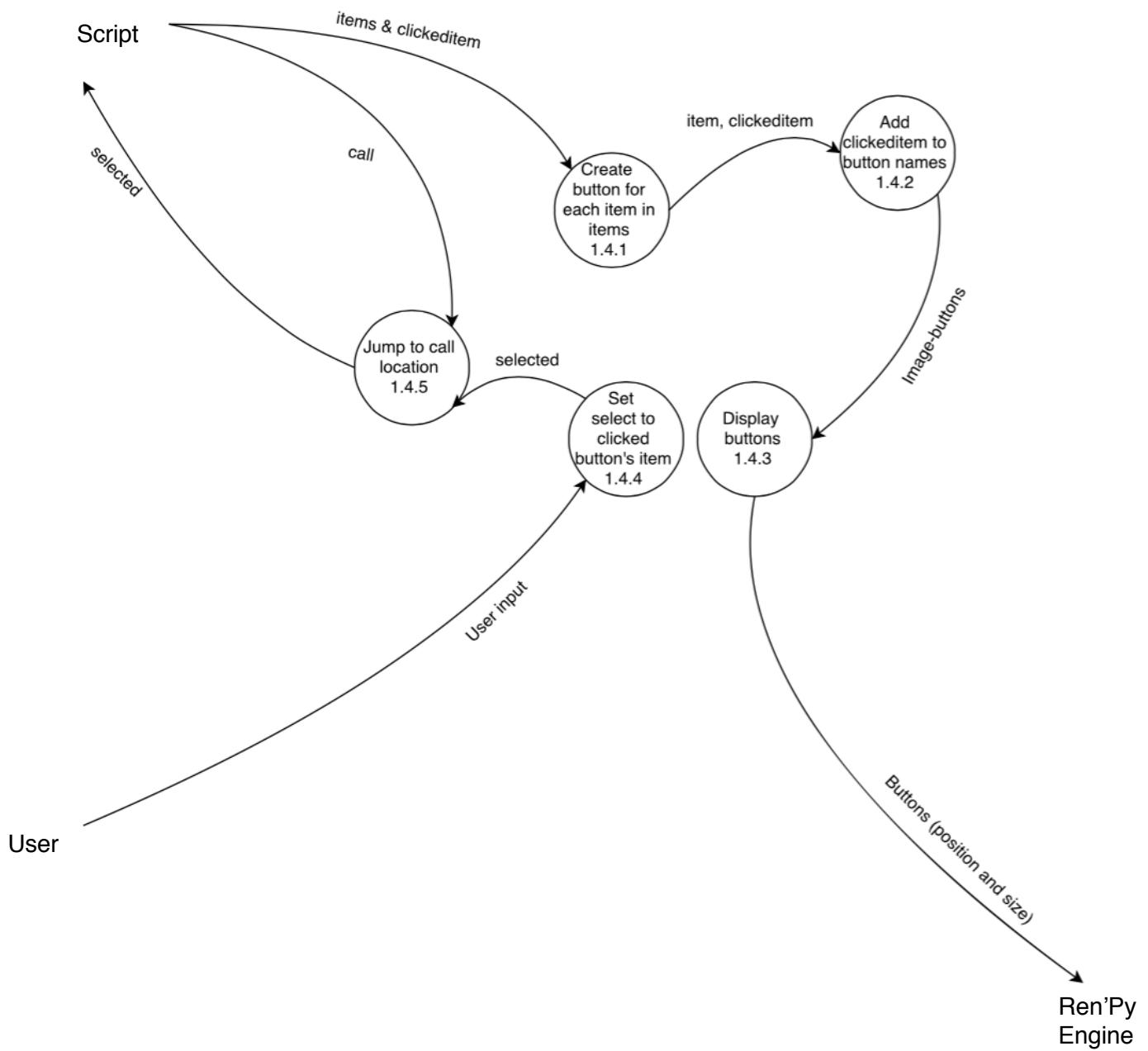


DFD - Level 1

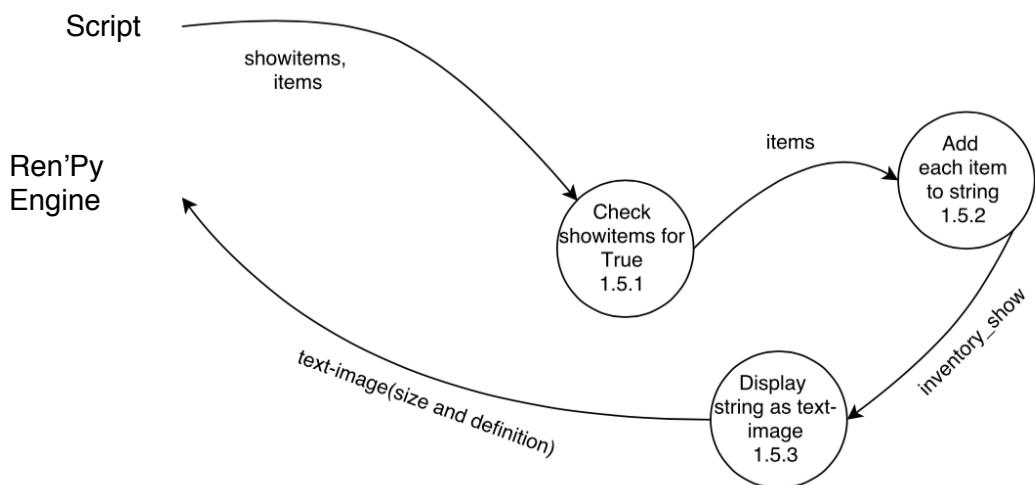
Note: Due to changing engines to Ren'Py, all layers of DFDs went through a complete revamp in order to represent the new systems function.



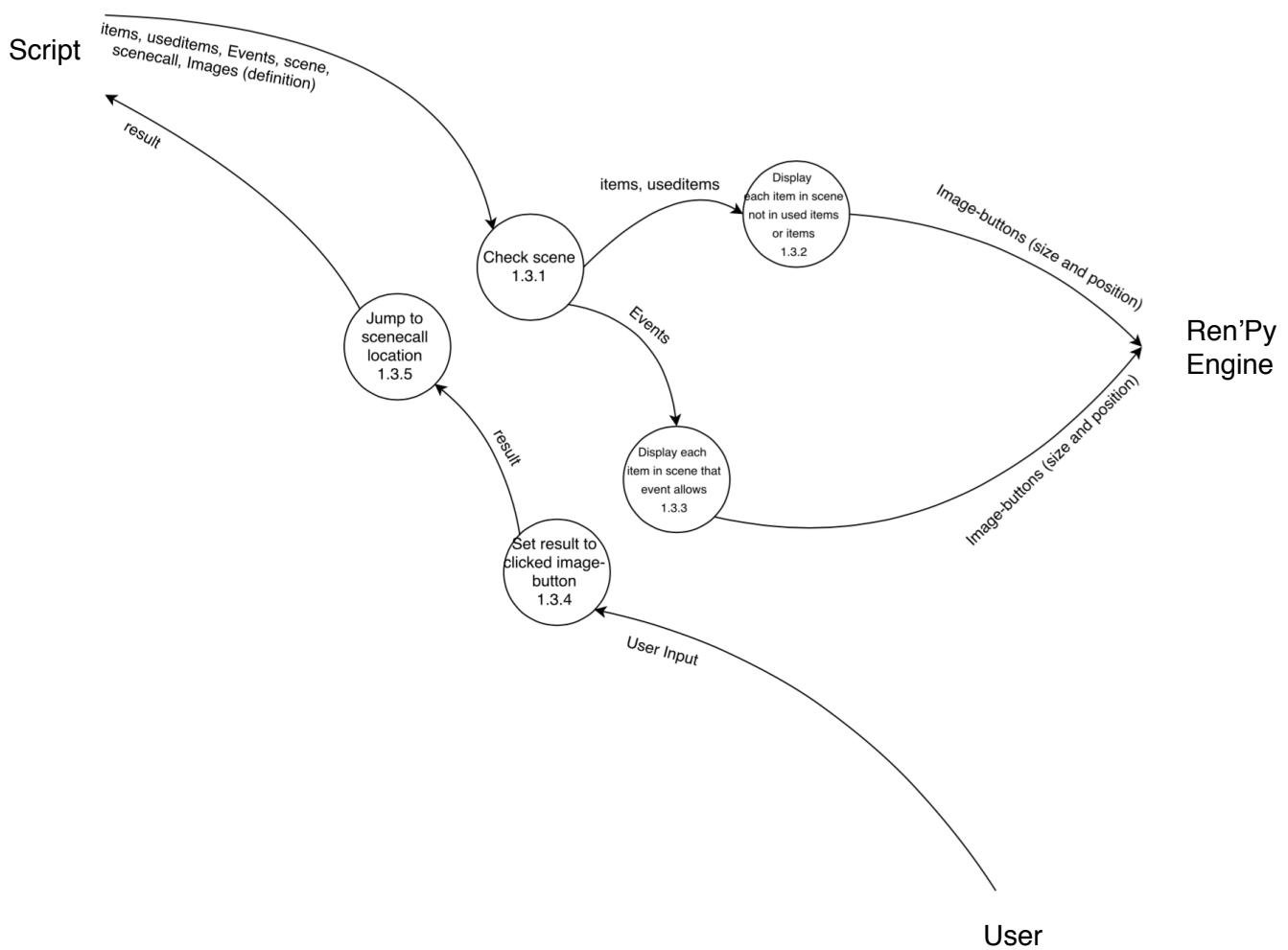
1.4 - PropHandler



1.5 - display_items_overlay

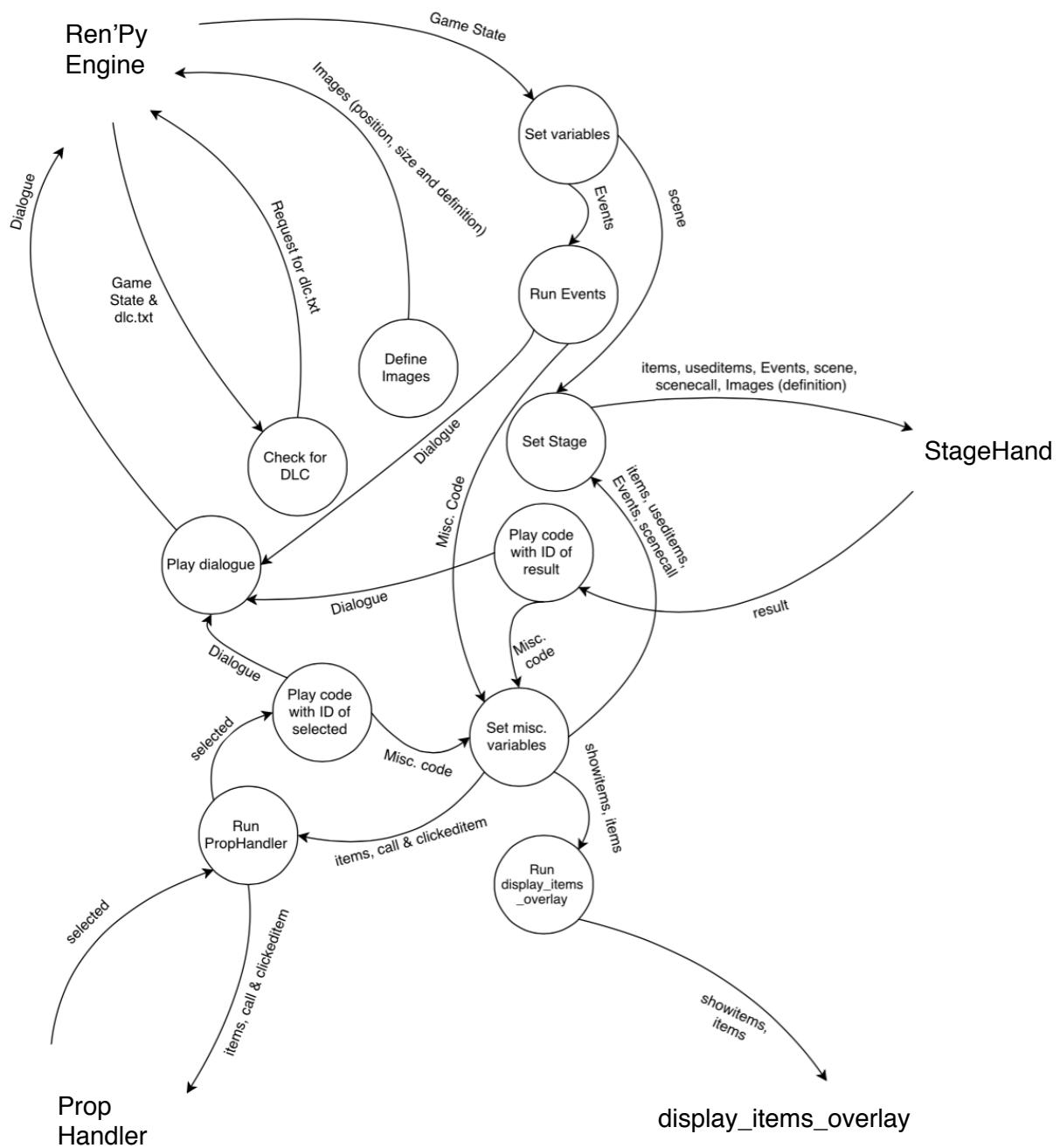


1.3 - StageHand



1.3 - Script

Note: A different script file exists for each scene in the game.



Project Website

Note: The website has been updated to include download links for the game.

Link: <http://hippo.emanuelschool.nsw.edu.au:8080/Emanuel/Moallem.Jonathan/info.html>

The screenshot shows a web browser window with the URL <http://hippo.emanuelschool.nsw.edu.au:8080/Emanuel/Moallem.Jonathan/info.html>. The page title is "The Ballad of Gumption". On the left, there is a vertical red sidebar with five icons: a white 'i' inside a circle, a white document icon, a white GitHub logo, a white tree icon, and a white folder with a downward arrow icon. The main content area has a light green background. At the top, it says "About The Game". Below that, there is a paragraph of text describing the game, followed by another paragraph about its creation. A small note at the bottom of the text block points to "The Gumption Tales Wordpress".

The screenshot shows the same web browser window with the URL <http://hippo.emanuelschool.nsw.edu.au:8080/Emanuel/Moallem.Jonathan/info.html>. The page title is "The Ballad of Gumption". The left sidebar is identical to the previous screenshot. The main content area now features a section titled "Download the game". It includes a paragraph of text encouraging users to download the game, followed by three download links: "Download for OSX" (with a blue download button), "Download for Windows" (with a blue download button), and "Download User Documentation" (with a blue download button).

Logbook

Note: Online version of logbook can be found at <https://theballadofgumption.wordpress.com>

Summer - 07/04/2015

Today I was able to get working on redoing the new assets that I made for the prototype I made in Keynote. The logic in my game could be 100% recreated in Keynote, so it leaves me wondering why I'm coding it at all...

Anyway, I'm just resizing all of the assets so that they are the same size as each other in pixelation. I noticed, as well as being told through feedback, that some assets have very different pixelation levels, which makes the game feel really cheap. I planned on using Godot previously, but I'm now thinking of using something easier, like Renpy.

Mural - 15/04/2015

I just realised I haven't committed on Git-Hub for a loooooong time. That wouldn't be good if I lost everything I had (being assets only really). This is now a bigger problem, because for some reason, Git-Hub wont commit. I'm going to rely on the fact I have TimeMachine on to take care of backup. This isn't a group project, and its not like I'm working on multiple files, so I don't think I really am that desperate for version-control. Meanwhile, Cohen said I should use Unity, because it's kind of like Godot in the way that its visual, except there's a lot more documentation on it. I managed to make all the sprites the appropriate native size as compared to the background image, which means it may cause fewer issues for me in the future. I guess if I do things proactively, I'll never see any results of the work I put in, because I wouldn't know if it would be a problem. It's kind of like Schrödinger's Theorem in which I never allowed myself to see if it would cause a problem. Tangentially, Schrödinger's Cat experiment says that if you open the box, and its dead, you kill the cat. By that logic, does that not mean everyone at an open-casket funeral is a murderer?

Dots & Lines - 23/04/2015

I'm now slightly more experienced with Unity than Godot, but not as much as RenPy. The thing is, I should really have done an Ace Attorney clone for my project. I would do almost no work on the engine, and only use the scripting features in RenPy. I have it all figured out:

Case #1

Lawrence Cohen is sent to the principal to answer for his alleged hacking of IT. Prosecution evidence is that Sophos is uninstalled from his laptop. I don't know specifics, but eventually, we discover that it was the mysterious, new IT guy who is actually The Pentagon building in disguise. Either that, or Nathaniel accidentally spilled coffee onto the server and Zoran tried to cover it all up with an elaborate meme.

But, I guess I'm not doing that, so I'll stick to the plan.

I don't actually know any C#, so Unity might be a pain. Although, I don't know any Godot either, and at least I'll get in some practise with Unity. I found some code on the internet that is supposed to do point & click style movement, but when I put it into Unity, I just got a tonne of errors. Cohen says that the code was Javascript, but I don't agree, the guy posted it to the Unity forums under the C# tag. Either way, it does not work.

Fall - 05/05/2015

So, using Unity, I managed to get a menu screen for Unity. The menu screen looks EXACTLY like the one I thought up in my storyboards from the beginning of the project. I spoke to Cohen this week about getting movement working in Unity, but he said that he's actually not 100% sure on how I should be doing it. Because of this, I have decided to leave it off for another point in time, and focus more about proper placement on the canvas, as well as changing scenes properly. Right now, I'm super focused on my job as lead designer at Sudo-Code Software, where we are making the mobile game of the century - Pongagon. It's like if you made Pong single-player. The game is also being done in Unity, so it's good practice.

Prisoner 1 & 2 - 11/05/2015

Today I found something pretty cool. It's an inventory extension for Unity that will handle all of the inventory management GRAPHICALLY. It's called Brackey's Inventory System. Did I mention it's free? Meanwhile, I think I might have worked out how to do character animation, although my animation techniques need a bit of work, as currently, it looks they're running, but their torso is completely detached from their body. In the mean time, Unity can be a bit rude with errors, in that way that it gives you four error messages for every actual errors in the compiled program. I cant help but feel bad about myself when Unity yells at me for excluding some brackets. Anyway, at this point, I'm planning on getting a bunch of work done over the weekend on button and menus.

Winter - 19/05/2015

I finally got the opportunity to work with Cohen on the movement. Basically, the character doesn't really slide to a location so much as it 'blinks' to a position on the screen, but at least it works in a general sort of way. I also created an offset, so that the sprite moves to the clicked location, but it's feet are the ones at the location of the click. I looks and feels a lot better to people to are veteran point & click players. along with this, I specified a 'clamp' for the character so that it will no appear too high or low on the screen. I did not have to do this for the x coordinate as the areas to the far right and left of the screen are walkable. There is one bug that I have found in all of this, and that's to do with the mathematics behind the movement system. Put simply, resizing the screen causes the movement to be somewhere between slightly off and way off depending on how close to (0,0) you click. As far as I can tell, its because rather than grabbing the screen size, I'm setting a standard pixel-width for the game-screen. As far as I have searched, there is no such variable in Unity to fix this.

Chopper - 21/05/2015

I didn't end up doing much coding in the last few days, and I have spend a lot of my time working on the models for the bathroom scene. Aside from this, I created a document that had a basic outline of all of the clicks possible in the game. Yeah, but mostly I worked on the sprites for everything in the bathroom scene.

Deliver - 30/05/2015

After showing Doust the mathematics in my movement script, he did a few google searches, changed a line of code, and suddenly my game is working with resized screens. It's actually beautiful. "It was an issue with the difference in units between the game objects and the mouse and was only difficult because Unity's documentation was awful." - His Royal Excellency, J.P. Doust Guardian of the Motherboard. "I have no sense of cable management" - Dr. Doust.

Adoration of the Magi - 06/06/2015

I have pretty much hit a brick wall in development, in that Unity has flat-out just stopped working for me. What happens is that when I go to apply a function to the game controller, the files name is changed, and therefore, breaks my logic - nothing happens. I tried to fix this myself for some time before bringing it to Cohen. It turns out that Cohen cannot fix the problem either, and so there is now very little that I can do to fix it. I have talked to Doust, and he said that he can hook me up with a basic tutorial and help me get started in SFML. SFML is C++, and therefore I would need to learn that, but overall, I know C#, so I should be able to use C++. I already got onto installing it, which was a pain, but its now only giving me 2 errors when I compile the test program. Basically, the SDK is Xcode, which is beautiful and it has tonnes of dev tools, on the other hand, it mean that I have to install all of the dependencies separately. Until then, I'm going to work on other things... probably Pongagon. Which you will probably be able to BUY ON THE APP STORE IN A FEW WEEKS.

They. Resurrect. Over. New. - 16/06/2015

I can't use SFML. I just don't understand it, and I cant do much work by myself on it at all. This afternoon, I came home and re-downloaded Ren'Py as Drake suggested and started taking a more serious look at it. Intently working for two hours to the sound of Biggie's Ready To Die album, I weaved some real coding magic to pull off one of the greatest feats in coding in history as recognised by myself: I created a point and click game out of Ren'Py. I already have the basic point & click mechanics in place, such as placing a character on the screen, making clickable objects and adding a custom icon for the executable. Anyway, I'm really quite happy that I was able to do this, so I feel like I will able to finish the entire project on my own.

Spring - 19/06/2015

I'm currently experiencing a little problem with my project being so wildly different to the intended use of the Ren'Py engine (being a visual novel tool). First of all, functions do not work as they do in python, and hence, the passing of variables around the project is a very delicate affair. This means that I am only able to use functions that have been made in the Ren'Py cookbook because for some strange reason, they do not break. Instead, I have to use the Ren'Py label system, making all of my work that much harder as I have to specify how to get back to the original jump location each time it is called. There are other things that have helped me along, like the inbuilt dialogue system, but more often than not, my troubles stem from attempting to make something that isn't a visual novel. I spend a long period of time trying to make the code as modular as possible without breaking anything, and I succeeded in creating the stagehand. The stagehand is a section of code that dresses the scene with objects depending on what is supposed to be playing. I also put the inventory and 'use item with' code into another file called prop handler that is able to display options for using items. Today, I'm a little stuck on the fact that my player in the bathroom scene is behind all of the other objects. Even the Ren'Py function for manually setting z-axis is ineffective against this. It works, but it looks really bad.

Tetsuo & Youth - 19/06/2015

Coming to the end of this project, I have realised that friendship and love is all I need to create a successful and efficient software project.

This revelation began with a question that I had submitted to the visual-novel forum when I was stuck with the issue that I explained in the previous entry. A number of individuals responded, some even rudely. As soon as I had given up all hope and faith in humanity, Ren'Py Tom answered my prayers. That answer was "Did you put that in an INIT statement?".

Finally, I was able to begin work on the last two scenes in my game. This basically involves a number of if statements, triggered by user actions. I'm not currently too sure how reliable that system will be, or how many bugs it will cause, but I'll have to see for myself. Another significant realisation I have had is that my game is based around social and ethical issues, the same social and ethical issues everyone is trying to extinguish with a passion so great that it set alight the hearts of the many and the few, as well as the people, the proletariat and the bourgeois. But the real stroke of genius in this project is that all the documentation literally writes itself figuratively. As you can see, I wrote an entire logbook and said nothing of substance, so in a way, my project is the "mom's spaghetti" of software assessments. That means that when you finish it, my goal is to leave you confused and dissatisfied with something you were previously invested in. So this is the way that I end this logbook:

Mom's Spaghetti.

Sincerely,
J-Mo

Test Data & Expected Output

Note: Checkmarks indicate that this holds true in the final game. Test data has had many elements removed due to now being handled by the Ren'Py Engine.

Test Data	Expected Output	Working?
Open program	Program starts and initialises	✓
Press quit	Program closes to desktop	✓
Click on non-tangible objects	Dialogue appears, player moves to location	✓
Click on tangible objects	Item shows up in inventory, player moves to location	✓
Click screen while dialogue is present	Dialogue disappears	✓
Click on action button in use menu	Item is used with clicked item	✓
Click on bathroom door	Bathroom scene opens	✓
Item ‘item’ is added to inventory	Inventory reads “Inventory: Item”	✓
Item ‘item’ is removed from inventory	Inventory disappears	✗
Event ‘deadspider’ triggers	Spider sprite disappears from the inventory	✓

File & Record Definitions

Note: Terms in triangular brackets (<>) are descriptions

dlc.txt is used by the program to decide whether to search for additional chapters. If it detects dlc, it will look for additional chapters. '0' indicates that there is no DLC present, and '1' indicates there is.

Format for dlc file

```
<'1' or '0'><EOF>
```

example of dlc.txt

```
0
```

PropHandler

```
BEGIN PropHandler(items, clickeditem)

    spacing = 0
    Display "Do nothing" button at (x = 0, y = spacing)

    FOR i = 0 TO Length of items STEP 1
        item = items[i]
        Increment spacing by 1
        showbutton = "Use " + item + " on " + clickeditem
        Display showbutton at (x = 0, y = spacing) & returns item on
Interaction

        IF spacing >= Screen height THEN
            Break
        ENDIF
    NEXT item

    selected = Interaction
    Return selected

END PropHandler
```

DLC

```
BEGIN dlcCheck()

    DLC = False

    Open dlc.txt for input
    Read number from dlc.txt

    FOR line IN dlc.txt = 0 TO Length STEP 1
        IF line == "1" THEN
            DLC = True
        ENDIF
    NEXT line

    Close dlc.txt
    Return DLC

END dlcCheck
```

display_items_overlay

```
BEGIN display_items_overlay(showitems, items)
    IF showitems == True
        inventory_show = "Inventory: "

        FOR i = 0 TO Length of items STEP 1
            item_name = uppercase of items[i]
            IF i > 0 THEN
                Append ", " to inventory_show
            ENDIF
            Append item_name to inventory_show
        NEXT i
        Display inventory_show text

    ENDIF

END display_items_overlay
```

System Testing Report

Displayable & Stagehand Test

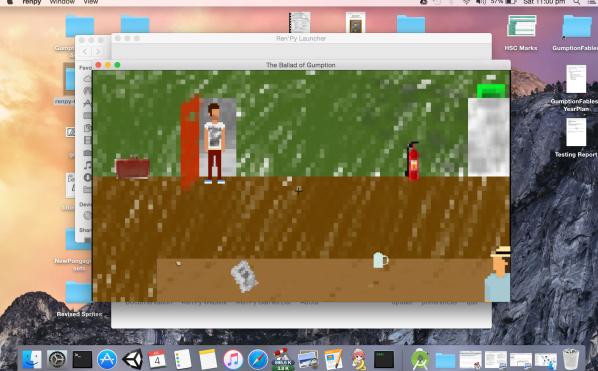
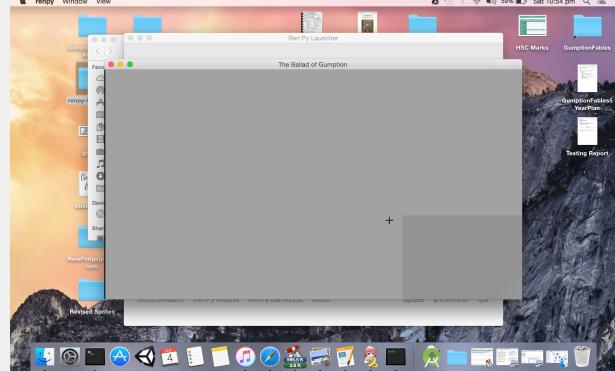
Date: 04/07/15

Type: White box

The data for this test is a set of variables set all to the values they would when entering the opening scene. When run, the screen did not display the required information.

The following problems were encountered during the test:

- 1) Screen was grey, and no objects appeared.

Test Data	
<pre>items = [] useditems = [] deadspider = False bartending = True toiletlocked = True peeps = False contractbool = False choice = False seen = False dead = False</pre>	
Expected Result	Result
	

Solution

Grey overlay was due to a large object that had been recently added. It had not been defined properly, and covered the screen. Item 'smoke' was redefined.

Displayable & Stagehand Test 2

Date: 04/07/15

Type: White box

The data for this test is a set of variables set all to the values they would when entering the opening scene. When run, the screen did not display the required information.

No problems were encountered during the test.

Test Data	Expected Result	Result
<pre>items = [] useditems = [] deadspider = False bartending = True toiletlocked = True peeps = False contractbool = False choice = False seen = False dead = False</pre>	<p>Expected Result</p>	<p>Result</p>

display_items_overlay Overloading

Date: 06/07/15
Type: White box

`display_items_overlay` was given a large number of items in order to see whether items would continue off screen.

The following problems were encountered during the test:

- 1) When text wrapped, it spilled off black inventory background.

Solution

Due to this being a highly unlikely circumstance in gameplay due to there being a finite amount of items in the game, especially being accessible at certain points in time, there is no need to correct the UI. However steps have been taken to limit the possibility of duplicating items in game such as setting the clicking of certain items to be an event.

PropHandler Overloading

Date: 06/07/15

Type: White box

The PropHandler was given a large number of items in order to see whether items would continue off screen.

The following problems were encountered during the test:

- 1) The function continued to list items past the bottom of the screen.

Test Data	
items = ['item','item','item','item','item','item','item','item','item','item','item','item','item','item','item','item','item','item']	
Expected Result	

Solution

This problem has been fixed by capping the number of options, rather than by number of elements, by area of screen occupied. This was done by implementing the following piece of code.

```
if spacing + 0.35 == 1:  
    break
```

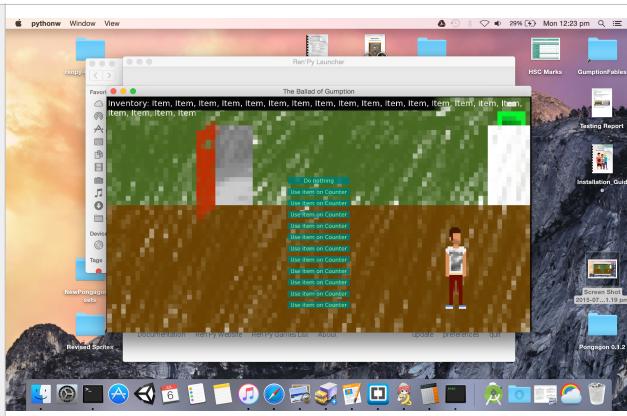
PropHandler Overloading 2

Date: 06/07/15

Type: White box

The PropHandler was again given a large number of items in order to see whether items would continue off screen.

No problems were encountered during the test.

Test Data	
<pre>items =\n['item','item','item','item','item','item','item','item','item','item','item','item','item','item','item','item','item','item']</pre>	
Expected Result	
Options should be capped when spacing = 1.0.	

Bug Report: Unidentified Data (gun)

Date: 24/06/15

Type: Black box

While getting customer feedback on product, a tester found a way to get an item named 'gun' in game. They were also able to obtain it multiple times from selecting 'do nothing' on the briefcase.

- 1) The item 'gun' appeared in players inventory.
- 2) Item appeared multiple times in inventory.

Test Data

```
items = ['Gumption', 'Non-Alcoholic Non-Pharmaceutical Pro-Vegan Beer', 'gun', 'gun', 'gun']
deadspider = True
bartending = False
toiletlocked = False
peeps = True
contractbool = True
choice = False
seen = True
```

Solution

After looking through the code for the word 'gun', it turns out there was a testing flag left in the code named 'gun'. Although not being part of the original design, the feedback from the customer lead me to adding it to the game, although the logic had to be extended to incorporate the item. Code was not removed.

Bug Report: Objects Not Leaving Screen

Date: 20/06/15

After running through the bar_scene until the bartender leaves, the spider sprite will not leave the screen.

- 1) 'spider' sprite is constant on screen

Test Data

```
items = ['Matches', 'Glass']
deadspider = True
bartending = False
toiletlocked = True
peeps = False
contractbool = True
choice = False
seen = False
```

Solution

I looked back on the data that the program had available at the time, I realised that it was due to not reversing the 'deadspider' event. This was remedied by applying the following code to the code run when using the extinguisher on the counter:

```
$deadspider = False
```

Bug Report: Side-Image Not Appearing

Date: 07/07/15

When speaking to the bartender with the spider on the counter, no side-image appears when dialogue runs.

- 1) Side-image not appearing for J-Mo in particular circumstances

Test Data

```
items = []
useditems = ['spider']
deadspider = True
bartending = True
toiletlocked = True
peeps = False
contractbool = False
choice = False
seen = False
dead = False
```

Solution

The problem was due to a coding error, where the character speaking was not defined. The following code rectified the situation:

```
j "He doesn't quite see the spider, I should move it towards him."
```

Bug Report: Player Sprite Not Leaving Screen

Date: 19/06/15

In the bathroom scene, the 'playerbigrev' sprite appears, but does not disappear when moving back to the bar scene.

- 1) 'playerbigrev' multiplies if moved in the bathroom several times.
- 2) 'playerbigrev' stuck on canvas after leaving bathroom.

Test Data

```
mousex = 0.95  
mousey = 0.57  
config.layers.insert(2, 'sudo')
```

Solution

Because the sprite is being defined on a custom layer (sudo) to override the other sprites, it does not respond to redefinition, and will just create copies of itself. This could only be fixed by manually removing the sprite from the screen after each click with the following code:

```
hide playerbig onlayer sudo
```

Bug Report: Scene Restarting

Date: 06/07/15

Customer feedback reported the following issue:

"Once you got to the Sasha bit, if you entered the bathroom and then exited, it restarted that section"

This bug was easy to replicate. And could be found in all versions of the game.

- 1) When reentering the bar area, the entrance dialogue restarted.

Test Data

```
seen = False
```

Solution

The boolean value controlling the event ('seen') was not changing to True. This was found to be due to not being initialised properly, and was fixed by defining it inside an init block.

Bug Report: Objects disappearing

Date: 06/07/15

Customer feedback reported the following issue:

“Stuff disappeared when the dialog box appeared”

This problem has been known for a while, but had not been fixed.

- 1) When displaying dialogue, all assets on the ui layer disappear.

Test Data

```
config.layers = [ 'master', 'sudo', 'transient', 'screens', 'overlay' ]
```

Not Solved

Ren'Py as an engine is built for visual novels, where dialogue is more important than gameplay. Due to this fact, it is not possible from the current code to have the items show during dialogue. It does not affect gameplay, and only one client has complained about it. Due to this fact it may be wise to leave it alone at this stage as attempting to fix it would mean a complete reworking of the code.

In order to fix this, I would need to change the version or Ren'Py language that I am using from the older UI language to screen language, and apply the following line to each 'show' statement. As it would be heavily time-consuming, I will not be aiming to fix it at this point.

```
renpy.transition(trans, layer="master")
```

Reflection

Another assessment, another reflection to reflect against and refract my diamond mind that augers all. So, what have I learned? What has a man learned? Or what did humanity learn?

Really, I think we all learned a lot from this experience, but I would like to take a moment to blame all my shortcomings in this project on people besides myself. This includes Cohen (both of them), my parents, Dr. Drake, the IT department, Apple CEO Tim Cook, Luke from Apple customer care, Kumail Nanjini and Barak Obama (thanks Obama).

I prepared a brief piece of slam poetry to express an overview of my feelings on this project:

How do you feel about hip-hop music without rap?

Likewise, how do you feel about indentation of code that's flat?

*The prose I spit with my source-code is so immersive it should have been on a cinema roll,
Though I'm writing this in a public library, on an iPhone, eating a cinnamon roll.*

The Gantt chart I wrote was quite off, much to my dismay,

But today is the present future of yesterday, and hence, my perseverance overcame.

*The updated design in the documentation is so hard to recognise,
Or even distinguish semblance of the original plans - they died.*

I used Ren'Py,

A Python-based library,

And wrote it all from scratch with user experience as my priority.

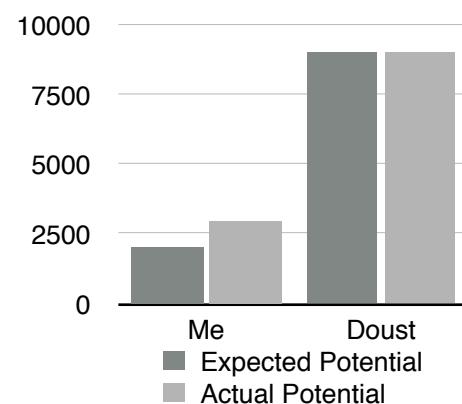
The Ballad of Gumption by Sudo-Code Software,

I'll look back and be proud of it when I'm old and grey of hair.

I learnt mostly about my own skills and potential. I learned about growth and perseverance in work-ethic. I also learned about this cool system called Slack for team-chatting.

Lets start with the potential thing. Here is a graph to demonstrate:

Now, what I'm trying to say, is that I didn't feel confident in the way of being able to make an entire point and click game on my own. I originally planned to get help from a number of individuals in the class in order to implement the game, as I didn't believe that I would be able to do it myself. But upon switching to Ren'Py on that sunny Monday afternoon or whatever, I actually wrote 3/4 of the code needed to make a functioning point and click game. I was amazed at the fact I made something on my own that was playable. Outside of web development, this is not something I had done before, and I am now very happy that I took on this project, as it has greatly boosted my confidence in programming skills.



Moving on to perseverance, I also learned that work-ethic is an important component of development. As I saw when... being 3 weeks to release date and not having anything but a broken Unity project to show for it, time escapes you when you don't allocate logical blocks of work and activity to them (eat, pray, sleep, code, excrete, repeat). In sum-total, it was a bad thing. Not to say there were no positives to it. I DID get a lot of other work done. And I also probably wouldn't have used Ren'Py if I hadn't slacked out. So, in future, I should try to work to the Gantt chart, instead of against it.

So... I tried Slack. I liked it. That is all.

From the head of the project to the rear end, I have grown as a person, and mostly would like to echo my sentiments of being a great confidence-building jazzercise in development. Mainly, it effected, and will continue to affect the way I deal with problems. Now, when I have issues, I mostly rely on trial and error to resolve it myself when confronted with coding errors. I used to either go straight to google or a human being for advice, but now I try to deal with it in a more independent way.

90% of the problems that I have had when developing this product have been due to the number false starts I have had with implementation. The first was PyGame, then Godot, then Unreal, then Unity, and finally Ren'Py, which ended up working to my needs. Although I had somewhat researched each of these before deciding to use them for the game, I didn't quite see the problem with the engine until I got around to it, meaning that I put in x5 the work I would have needed to had I began this process with Ren'Py. The one I worked with for the longest period of time before acknowledging that it will not work was Unity. The specific problem I had with it was due to a technical issue with the application. It began renaming my function files randomly according to the data passed through them. I overcame this hurdle by switching to Ren'Py, as neither the internet, or Nathan could tell me what was going on.

As John Lennon once sang, I got by with a little help from my friends. In the current build, I got a few suggestions from Drake, I had Larry re-indent a single line of code, and I spoke to the maker of Ren'Py, Ren'Py Tom about how to use the layer system. Apart from that, all the code was written independently.

The two issues I didn't overcome were movement and inventory. I instead decided to completely avoid them by changing the design of my project, from doing free movement, to restricted movement. I also changed it from a cursor-based inventory system to a button-based system. The only thing this changed was how polished the final product ended up coming out. Although it did save me a lot of trouble in animation. The reason I decided to omit these features was basically due to the limitations of using Ren'Py, and that redefining the use of the engine is only possible to a certain degree.

Speaking omitting features, due to original time constraints, and for the sake of project scaling, I decided to only include the first chapter of the game, as I had not written the puzzles for Chapter 2. And if you read Chapter 2, it's a much longer and complicated scene to do, especially when you consider the amount of assets I would need to create.

I think I have successfully created a fun experience, at least for people who enjoy the idea of a point and click game. When I showed Actom360, a point and click fan, he enjoyed the puzzles and thought that they were challenging and clever. Although he noted that the idea expressed in the prototype was a little more ambitious, he also said it was fleshed out enough to be a point and click game. And if it put a smile on the face of a single person, I would feel that it was all worth it. I mean, that's why people write songs, or books or make movies - to emotionally connect with the audience. And in this game, I aimed to share a glimpse into my style of humour circa year 7, and in a way, it could be a window into that period in my life. I think I went full Phil Fish there, but it stands true.

I'm happy that I made it, but I aim to create more point and click games in the future. Hopefully they will be coded by someone else so I can focus on the writing a lot more. And that's what I am the most disappointed with. Some of the dialogue in the game was carefully written, and the rest I phoned it in. Lines like "I'm just here because I say something in the next scene" aren't in the game. Neither are the funny object descriptions, soliloquies, or more or less importantly, the other chapters. If I had the time and resources, I would package it in some old school pc game packaging - that was always my goal. If I had more time, would I add chapter 2? Maybe not. This game is more so a proof of concept than a full game. Realistically, I am a perfectionist in some ways. And part of that is why I don't hand in drafts to teachers - because I love the feeling of being able to hand in an amazing, finished product that has some real oomf to it. I want to give the best possible first impression (which is why Pongagon is taking so long to finish).

I'm happy that I have it. I'm happy that I was able to do it. And I will also be very happy if I can make a career out of it.