

Daycare Desertion - Group 4

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1 Logline

"Nap time is over!"

2 Gameplay Synopsis

2.1 Overview

Our game plays like a classic side scrolling game, even if the level themselves are not scrolling. The user is given a side view of the world and the children occupying and interacting with said world. The user will need to use speed and cunning to help the children escape from the day care center and the "evil" worker. Our game is unique in that it combines aspects of a puzzle/strategy game with some influence from an RPG. Characters can age and the user can use different abilities on different characters. Plus the characters in the game are babies and young children, something not often found in games. Our game is set in a daycare. The characters are not happy with their current level of care and must work together, via user control, to escape the day care and get to the exciting world outside. Each level is set in some form of day care setting with new sets and combinations of obstacles that they must overcome in their daring escape.

2.2 Gameplay Descriptions

The goal of each level of the game is the same, use children of different ages and abilities to facilitate the escape of some level dependent number of children from the day care. Each level becomes more complex either through the use of more difficult obstacle layouts, higher numbers of required escapees, or more stringent time requirements. Children enter the level out of a door at the baby stage. They are youngest and have the lowest ability set at this point. As the babies roam the level they are constantly aging. At some point, they grow older and become a toddler. At this point their abilities are expanded. If they are in-level

long enough, the toddlers will progress to the final stage, a small child. At this point they have the maximum set of abilities provided to characters in game. They are powerful and can overcome many obstacle by themselves. At this stage, they are also extremely useful in assisting the smaller children to overcome obstacles. The children are young and therefore do not make decisions for themselves. They simply walk in a direct path until they encounter an obstacle. If they can overcome the obstacle they do so, if not, they turn 180 degrees and keep walking.

It is the goal of the user to control the children in such a way that they work together to escape from the day care. To do this, there are a number of abilities provided to the characters. These abilities include:

- Moving younger children - Either throwing laterally or lifting
- Building blocks - Using building blocks to construct new in level objects
- Aging - Expands ability set
- Reprimand - Permanently stops the child. They still interact but they don't move
- Climbing - Some older children can be designated climbers
- Walker - Younger children can be put in walkers to negotiate high falls or steps
- Food or Drink - Temporarily stops a child of any stage while they eat or drink

Using these abilities the user should be able to get the designated number of children out of the day care in the supplied time.

The user will need all these abilities to overcome the obstacles that may occur in any level. These include:

- Walls
- Blocks
- Directional Ramps
- Bidirectional Ramps(Triangular)
- Stairs
- Ledges or falls
- Holes

Users will be able to click on the children to bring up a graphical menu of their abilities then will be able to use said abilities by clicking on the graphic associated with the ability they want to use or by using one of the designated keys that are mapped to that utility. By using the keys, the user will be able to keep the cursor close to the children and will not have to make rapid movements to and from the abilities menu. Unfortunately, there may be cases where the user is not careful and children walk off a tall ledge, fall down stairs, or maybe fall into an abyss or hole. In these cases, that child can no longer be controlled by the user, we will assume that the child is hurt and is magically transported off the level map and to some hospital. The user must be careful to control the children, losing too many to the hospital will make it impossible for them to achieve the level goal of getting some x number of children out of the day care center.

2.3 Controls and Interfaces

Controls: The user will control the children and interact with the game via a standard keyboard and mouse. To use one of the children's abilities the user will click on the child, thus bringing up the abilities of the child in the abilities menu. At this point the user can move the cursor to the abilities menu or they can use one of the keys that are mapped to abilities. The controls are as follows:

- **Left click** - Selects a child or uses an ability
- **Right click** - Deselects a child
- **1** - use ability 1*
- **2** - use ability 2*
- **3** - use ability 3*
- **4** - use ability 4*
- **5** - use ability 5*
- **6** - use ability 6*

**To use these abilities, a child needs to be selected and possess the given ability.*

The abilities that are mapped to the keys 1-6 will change when children of different stages are selected. The reason the keys are mapped as they are is so the user will never have to move their hand when they click different children. They need only look at the menu showing which keys are mapped to which ability for that child. When a child is selected the children's ability menu will be populated with that child's abilities.

Interfaces: The user will interact with two main interfaces, the map of the level itself and the abilities menu. When a child is selected, the abilities menu is populated with graphics depicting all the abilities the child possesses. The level interface only allows interaction with the children. Children can be selected and deselected. The abilities interface will be setup in such a way that each ability is well separated and defined in the menu. Each picture representing the abilities will be clear and easily understandable to the user. The user will click on these pictures or hit the mapped key to use these abilities. This abilities menu is populated with a child's abilities whenever a child is selected by clicking on them and is updated whenever an ability is used. There is another interface displayed on the screen but it is not interactive. This menu shows all the abilities that are available to the whole range of children on a given level. This interface keeps track of how many of each ability the user has left. This is crucial since it will often be the case that each ability needs to be conserved and used at the strategic time to complete the level. The only other interface the user will interact with is the startup screen. From this screen they will be able to do two things, with buttons on the screen representing each of the actions. One will be to start the game which will take them immediately to a level and then they will interact with the interfaces previously addressed in this section. The other button will take them to an instructions page where they can read an overview of the game, rules for gameplay, the goals of the game, and get a run down of the controls.

2.4 Rules

First, let's define the abilities for each stage of child. These are essentially the rules for the child objects. Below are the stages and the corresponding abilities:

1. Baby

- Aging
- Reprimand
- Walker
- Food or Drink

2. Toddler

- Building Blocks
- Aging
- Reprimand
- Climbing
- Food or Drink

3. Small Child

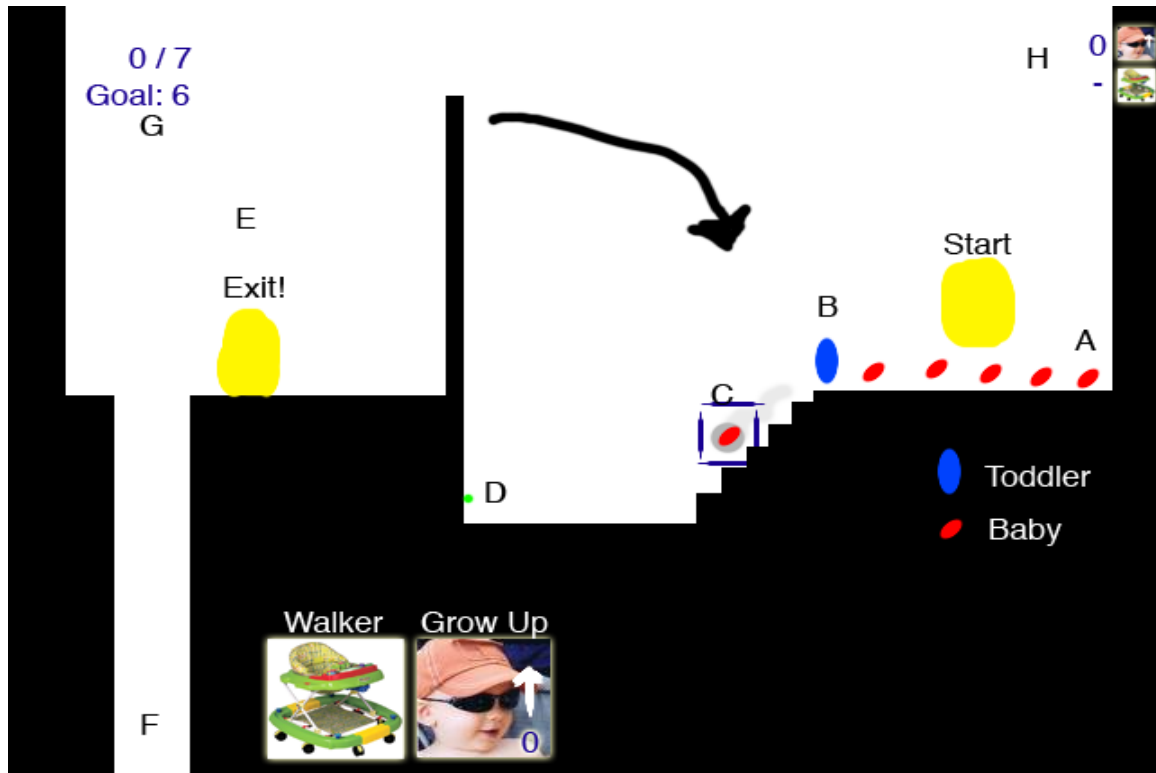
- Moving Younger Children
- Building Blocks
- Reprimand
- Climbing
- Food or Drink

On each level the user will be allowed a certain number of abilities. This is part of the strategy aspect of the game. If the user could get every child to the maximum ability set in every level then the game would lose a lot of its allure because the levels would be much easier. So the user must consider the number of each abilities they have for each level and then use these abilities to get the defined number of children out of the day care. On each level the user will only have access to a limited number of children. Because of this, they must be careful that they do not send many to the hospital. If, at any time, the user has sent enough children to the hospital that they will not be able to reach the goal of escaping children, the level will end, the user will be notified of their failure, and they will be given the option to restart at that level or switch back to the main menu.

2.5 Scoring/Winning Conditions

The only score aspect of the game is how fast the level is accomplished. Points are awarded for finishing a level and bonus points are awarded for the difference between the users completion time and allotted time to finish the level. The user completes a level when they get the level defined number of children out of the day care. The user wins when they complete all the levels in the game since each level gets progressively harder.

2.6 Gameplay Diagram



A) This is where the level starts. At this point of the level, all the children have been released by the start point. The babies are currently looping back and forth because of the child at point B.

B) This baby has been aged to the toddler phase. Using his ability to block babies, he has been ordered to stand guard by the player and not let any pass.

C) This baby was in front of the grown toddler and so was not stopped from going down the steps. Babies cannot safely go down steps without the player's instruction. This baby has used its Armored Walker to protect it from the fall down the stairs as per request by the player. Babies that do not do this will be lost and cannot be reclaimed until the level starts again.

D) The baby that was told to descend the stairs is going to press the button at D. This button will lower the bridge above and allow the rest of the children to pass over to the exit.

E) This is the Exit. Children will automatically leave the level when they reach this point. Every stage will have an exit. After a child exits, pay attention to point G.

F) This is a hole. Should a child ever fall down a great height or fall out of the level, they will be eliminated from play until the level is restarted.

You'll also notice that the context sensitive power icons are placed down here. The baby on the stairs is currently selected. This level only allows him to grow up and use the walker. The zero in the bottom left corner of Grow Up indicates that the power has a limitation and it has been consumed. In this case, it was consumed by the child at point B.

G) Here you will see the current score for this level. Any restrictions or goals will be displayed here. There are currently 7 children out in the field and 0 have made it to the exit. 6 Children need to reach the exit to pass this level, allowing one child to be left behind or eliminated. Each level gives you a varying amount of children, powers, goals and limitations depending on the challenge. In this level, the baby that presses the button will be left behind, as there is no way to recover him once he is down there.

H) This menu shows the cumulative set of abilities for a given level. For each ability type available, this interface shows the remaining number of those abilities available to the user. Once the user uses all the allotted abilities or the abilities are not available on the level, the abilities become visibly unusable so that the user is well aware that they can no longer use those abilities.

3 Division of Labor

1. Arthur
 - Level design and implementation
 - Level completion/failure conditions
 - Level changes
 - End of game conditions
 - Testing
2. Donald
 - Setting up svn repository
 - Creation and maintenance of design document
 - Creating and populating start menu and instructions interface
 - AI for children
 - Children and ability classes
 - Child selection and deselection event recognition and responses
 - Testing
3. Thomas
 - Design and creation of game graphics
 - Creation or locating sounds and themes
 - Game animation and "physics"
 - Testing