Detailed Game Specification:  
Classic Metroid

Course: COMP 2659, Winter 2017  
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# 1. General Game Overview

Classic Metroid is a 2D platformer, the point of view is a side view of what is going on, moving off the screen will cause the next “stage” to render. Samus will then be moved to the opposite end of the screen. You play as Samus a galactic bounty hunter. Samus has the ability to attack, move and jump. Samus’s goal in Metroid is to get to and kill mother brain. Upon killing mother brain Samus wins the game.

# 2. Game Play Details for Core 1-Player Version

## C:\Users\aeato254\Downloads\20170411_120430.jpg

## Objectives and Rules

At the start of the game the player is loaded into the scene depicted above in the first picture. For my version I will only include the levels shown by the second picture due to time constraints.

Rules:

1. When Samus’s energy reaches 0 or below this results in a game over and the player must restart or quit the game.
2. When a player restarts they are forced to go to the initial spawn point. However the player that restarts is able to keep all of the items that they have acquired.
3. Upon collision with an enemy Samus will take a varying amount of damage based on the enemy she collides with.
4. The player wins the game by defeating the final boss, mother brain.

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| --- | --- | --- | --- |
| Object or Object Type Name | Properties | Behaviours | Graphical Image |
| Energy Bullet | * Speed =560 px/s (pixels per second) * Kills enemys * Has a size of 4x4 pixels | * Colliding with enemy then the enemy and bullet are removed |  |
| Samus | * Entity that a player can interact with. * Has three different states: left, right and up | * Colliding with enemy calls decreases samus’s health by 5 and removes the enemy |  |
| Zeb | * Entity: Enemy :Zeb * Deals 5 dmg to player * SpeedX =280 px/s (pixels per second) * Size of 16x16 | * Colliding with Samus decreases samus’s health by 5 and removes the enemy * Increases Xpos until it collides with a wall or a player | Metroid Enemy Zeb |
| Skree | * Entity: Enemy :Skree * Deals 5 dmg to player * Speed =420 px/s (pixels per second) * Size of 16x32 | * Colliding with Samus decreases samus’s health by 5 and removes the enemy * Hangs on the roof until Samus is within range then descends until it hits the floor. | Metroid Enemy Skree |
| Rio | * Entity: Enemy :Rio * Deals 5 dmg to player * Speed =280 px/s (pixels per second) | * Colliding with Samus decreases samus’s health by 5 and removes the enemy * Constantly try’s to chase the player. | Metroid Enemy Rio |
| Platform | * Basic platform | * Is an object that prevents Samus from free Falling. |  |
| Energy Indicator | * Hangs in the bottom left corner of the screen | * Displays the current energy level of Samus. |  |
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## Physics

Unless otherwise specified no object or entity can collide with another object or Entity. A collision will result in the entity hitting a stand still against the colliding object. For Samus a falling rate (gravity) of 70px/s

## Asynchronous (Input) Events

|  |  |  |
| --- | --- | --- |
| Event Name | Triggering Input Event | Description |
| Move Right | When right arrow key is pressed | Moves Samus Right at a pace of 70px/s |
| Move Left | When Left arrow key is pressed | Moves Samus Left at a pace of 70px/s |
| Jump | ‘Z’ key is pressed, cannot happen in Ball form | Gives Samus a 140px/s movement upwards until JumpTime has been reached. (JumpTime = 2 sec) |
| Attack | Space bar | Lanches an energy bullet according to samus’s current direction |
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## Synchronous (Timed) Events

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| Event Name | Trigger Timing | Description |
| Energy Bullet Moves | Every 1/70th of a second | Bullet moves forward at a speed of 280px/. |
|  |  |  |
| Move Zeb | Every 1/70th of a second | Zeb moves. |
| Move Skree | Every 1/70th of a second | Skree moves. |
| Music is updated | Every 1/70th of a second | Music is updated and notes are changed if necessary |
| Move Rio | Every 1/70th of a second | Rio moves. |
| Samus Moves | Every 1/70th of a second | Samus is moved based on the gravity constant and which arrow keys are held down. |

## Condition-Based (Cascaded) Events

[Note: some events may trigger other events, conditionally. This is called event “cascading”. The triggering event(s) may themselves be asynchronous, synchronous, or other condition-based events.]

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| --- | --- | --- |
| Event Name | Triggering Condition | Description |
| Enemy Collides with Player | Player or Enemy Has moved and now intersects with Samus | decreases samus’s health by 5 and removes the enemy |
| Attack Collides with Enemy | Movement of the attack | Enemy is removed and bullet is removed |
| Player Collides with platform | Movement from the player | Player is inside of a platform and needs to be moved before being rendered |
| Enemy Collides with platform | Movement from the Enemies | Enemy is inside of a platform and needs to be moved before being rendered |

## Hypothetical Gaming Session

Player is loaded into the game at the starting base. Seeing the two enemies nearby the player attacks and kills said enemies. The player continues to move around using the arrow keys, The player may run into another enemy at which point the player will attempt to kill or avoid the enemy. This process will repeat until the Player reaches and kills mother brain or the player quits.

# 3. Game Play Details for Core 2-Player Version

The two player version is identical to the original game, except for one difference. In the two player version of the game there is a second player, zero suit Samus, who can be moved by the second player. The second player doesn’t have to stay in the same area as the first player. If the second player enters a room where the first player is in, it will retrieve a list of alive enemies from the first player. If the first player enters a room where the second player is in then the opposite interaction happens. The two players do not have to exist on the same screen simultaneously but they can be.

# 4. Sound Effects

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| --- | --- | --- |
| Sound Effect Name | Brief Description | Event which Triggers Playback |
| Attack fired | Beeping type sound | When an attack is fired |
| Background song | Classic Metroid theme song | Always plays |
| Metroid jumps | Rising beeping sound | Samus jump is started |
|  |  |  |

# 5. Additional Features (Time Permitting)

Freezing bullets

Tourain, Norfair, Hideout one & Hideout two

Wave beam

Varia Suit

Long Beam