

Battlefield Doc

Map Terrains

Forest: In forest terrain, trees, and dense vegetation will limit the placement space of paths and defense towers, forcing players to plan defenses in a limited area. Forest terrain will reduce the number of open spaces and increase the complexity of path planning. Natural obstacles such as trees and rocks will limit the player's path drawing, but these obstacles can also be used to extend the enemy's route. For example, players can bypass dense trees to force enemies to move in narrow terrain, thereby maximising the attack time of dinosaur towers.

Environment Art Forest -

- Leaves blowing in the wind
- Waterfall decoration?
- Dynamic foliage

Desert: Desert terrain can affect the state of enemies. In desert maps, enemies' movement speed may increase, but at the same time, their health will gradually decrease, simulating the consumption of high temperatures on organisms. At the same time, water resources in the desert are scarce, and players may obtain fewer food resources on the map, making resource management more important. After each wave of enemies, the amount of food dropped may decrease, forcing players to prioritise the placement strategy of paths and defense towers.

Terrain can provide unique benefits to dinosaur defence towers. For example, velociraptors gain a speed bonus on desert terrain, and stegosaurus has a range attack enhancement on forest terrain.

Some maps may add fog effects to limit the player's field of view, making enemies temporarily unattackable and increasing the player's defence difficulty.

Environment Art Desert -

- Sand dune wind
- Cacti? (did not exist during the dino age but thought of google dino game)

Terrain could define the level. Easy levels only have one terrain type. Intermediate makes players work with two terrain types and the border between them. Hard will be three etc.

Terrain types have a buff for certain Dino types but also for certain enemy types. And then also each level will have specific enemy orders to make it more or less difficult?

Events

Overview:

Events should serve to challenge the player. They should not destroy the player's progress.

Events will be level specific and predetermined based on level design.

Events should have an even balance of negative and positive effects on the player.

Events:

Example Structure:

Mechanics:

Destruction

Timing

Area

Lasting Effects

Purpose:

Meteor:

Just like on the Yucatan peninsula 66 million years ago, a meteor will fall from the sky killing any dino in its path.

Mechanics:

1. Destruction

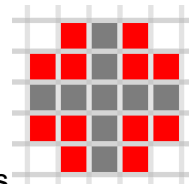
- **Destroys** all path tiles, biome tiles, and dinosaurs in its fall area.
- These are *not* given back to the tile pool, biome pool, or as currency.

2. Timing

- **2 round warning**
 - “Incoming meteor: x wave(s)”
 - The wave before should be “Incoming meteor: 1 wave(s)”
 - The wave it hits: “Incoming meteor”
- Happens at the beginning of the third round – when the first bugs spawns, animation should happen.
 - Players will have 6-10 waves to prepare as well as two full round pauses.
 - Full round pauses should be used to move the path out of the way.
- **1 round warning**
 - A different timing where the player will have 3-5 rounds and one full pause to prepare.

3. Area

- **Shape**
 - 5 rounds away
 - ~10x10 area, however not shaped as a perfect square or circle.
 - 4 Rounds
 - ~9x9 area, however not shaped as a perfect square or circle.
 - 3 Rounds
 - ~8x8 area, however not shaped as a perfect square or circle.
 - 2 Rounds
 - ~7x7 area, however not shaped as a perfect square or circle.
 - 1 Round
 - ~6x6 area, however not shaped as a perfect square or circle.
 - End of round



- A circle with a diameter of 5 tiles
 - All path and biome tiles in the area as well as dinosaurs are deleted and *not* credited back to the player.
- **Visual Design**
 - The areas outlined above should be overlaid in a translucent color to indicate where the meteor will/may land.
- **Replayability**
 - There should be a few variations on the warning areas and final landing spot of the meteor, so that players cannot plan for it from the very beginning.
 - It will always happen on the same round.

4. Lasting Effects

- **Debuffed**
 - For the next three *rounds*:
 - Dinosaurs in the area will have halved stats.
 - Paths placed in the area cost two tiles for one grid space.

- This should be visually represented with discoloration or debris assets.
- **Fertile**
 - On the fourth turn after the meteor strike:
 - The land there will become “fertile” and biomes placed in that area will gain doubling effects.
 - For example, if the hill biome provides 1.5x range to a dinosaur, a fertile hill biome will provide 3x range.
 - **Visually**, this should be reflected with a more intense color with the biome symbol, or a 2x symbol. Some way for the player to distinguish that the biome is *even* more powerful.

Purpose

1. Player Strategy

- Requires players to **reroute their path** and move their dinosaurs, giving them a new, interesting puzzle to solve.
- Destroying the biomes is a way to balance having early game power and then taking it away as the player gets further into the game. That helps shift the priority from placing dinos on the buffing tiles only and then just forcing a path around them, to a careful balance of only using the more expensive dinos on the remaining buff tiles to get the most value.

2. Player Progression and Power

- Allows the player time to move their dinosaurs and paths, so it is the player's choice whether they are destroyed or not.
- Biomes will be destroyed as they are unmovable.
 - This keeps the player from spreading biomes all over the battlefield which encourages the “longest path” strategy.
- Biomes placed in the fertile phase will be doubly effective, encouraging another rerouting of strategy and offering more power.

Volcano:

A volcanic eruption covers the battlefield in lava. Not only does it hurt your dinosaurs, it also hurts the bugs.

Mechanics:

Destruction

- If a dinosaur is in a lava tile for two waves it will be destroyed.
- Bugs moving through the lava tiles should take damage over time.
- Biomes under lava tiles are destroyed.

Timing

- **1 round warning**
 - First warning given at the end of round x, after the last bug has been killed and the player is entering into a full pause.
 - **Messages:**
 - **Earthquake alert:** screen shakes
 - Message pops up saying "Volcanic Activity in: x wave(s)"
 - During the wave: "Eruption Imminent!"
 - At the end of the final wave of a round, after the last bug has been killed, a volcanic eruption happens.
- Lava **disappears** after 5 rounds

Area

- Lava covers random tiles on the field.
 - No more than an area of 3x3 can be covered in one place.
 - 30% of the tiles on the field should be affected by lava.
 - It cannot affect the enemy spawn tiles or dinosaur base.
- Influenced eruption
 - Most of the lava spots should land on or within 2 spaces of the path
 - Still appears random but has more effect on where the player is currently playing
 - More likely to force dinosaurs to move

Lasting Effects

- **Damage**
 - Dinosaurs cannot be in a lava tile for more than 2 waves.
 - A flame indicator icon should show up above the dinosaur's head to indicate it is burning.
 - The icon should also have the number of waves until the dino dies.
 - A dinosaur must be out of the lava for a full wave for it to lose the icon.
 - This is so the player can not constantly move them in and out of lava during the round.
 - At the *end* of the second wave it has been on fire, the dino is destroyed.
 - Bugs that cross over lava take x points of damage for each tick/second they are in it.
- **Paths** in lava cannot be edited – deleted or upgraded.
 - However they *can* make new connections.
 - So if the player deletes and replaces a tile next to the lava, that lava-ed tile can still attach to the new one.
- **Paths** *can* be placed in lava.
 - Allows the player to use lava to their advantage.
- **Fertile**
 - After the lava disappears:
 - The land there will become "fertile" and biomes *placed* in that area will gain doubling effects.

- For example, if the hill biome provides 1.5x range to a dinosaur, a fertile hill biome will provide 3x range.
- **Visually**, this should be reflected with a more intense color with the biome symbol, or a 2x symbol. Some way for the player to distinguish that the biome is *even* more powerful.

Purpose:

1. Player Strategy:

- Requires the player to **move their dinosaurs** to new places.
 - Makes some of the map unusable to dinosaurs – space as a resource
- Parts of the path become more desirable as it does damage to bugs
 - Can make the player want to change their path to take advantage.

2. Player Progression and Power

- Allows the player time to move their dinosaurs, so it is the player's choice whether they are destroyed or not.
- Biomes will be destroyed as they are unmovable.
 - This keeps the player from spreading biomes all over the battlefield which encourages the “longest path” strategy.
- Biomes placed in the fertile phase will be doubly effective, encouraging another rerouting of strategy and offering more power.

Tsunami

Limits tile placements for land dinos, washes away all special tiles.

Pushes dinos x squares in direction of wave.

Turns all biomes into swamps for x turns.

Tar Pits

Blizzard

Slows down dinosaurs and bugs. Freezes over biomes. Limits dinosaur range.

Paths

Tile Acquisition

Overview

The Tile Acquisition System determines how players obtain path and biome tiles to build their defensive strategies. At the end of each wave, players are presented with a choice of three different bundles containing varying combinations of path and biome tiles. This system balances randomness with strategic decision-making, keeping gameplay engaging and dynamic.

Tile Acquisition Mechanics

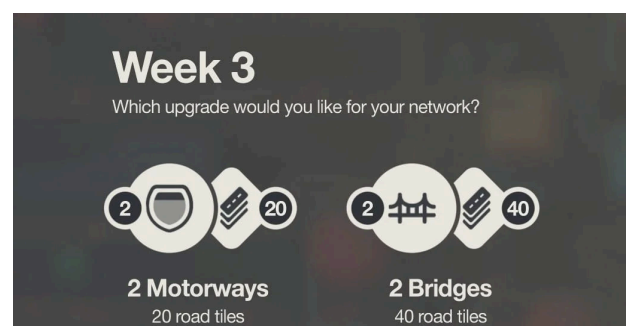
1. End-of-Wave Bundle Selection

- **Three Bundles Offered:**
 1. **Pure Path Bundle:** Contains only path tiles.
 2. **Pure Biome Bundle:** Contains only biome tiles.
 3. **Mixed Bundle:** Contains a combination of path and biome tiles.
- **Timing:** The selection occurs at the end of every enemy wave, providing a consistent rhythm to resource acquisition.
- **Balancing:** Amounts should be very low. The player should not necessarily update their path every round, but strategize while waiting to obtain a certain amount of tiles.

2. Randomization and Player Choice

- **Random Biome Tiles:**
 - The biome tiles offered in bundles are randomly selected from available biome types.
 - Adds unpredictability, requiring players to adapt their strategies.
- **Informed Decisions:**
 - Players choose the bundle that best fits their immediate needs and long-term plans.
 - Decision factors may include the upcoming enemy wave composition, current map layout, and available resources.

Example in Mini Motorways:



Bundle Details(Made up Numbers)

1. Pure Path Bundle

- **Contents:**
 - A higher number of path tiles (e.g., **5 Path Tiles**).
- **Purpose:**
 - Allows players to extend or redirect enemy paths, maximizing exposure to defenses.
- **Strategic Use:**
 - Ideal when players need to adjust enemy routes to optimize their defense setup.

2. Pure Biome Bundle

- **Contents:**
 - A set number of random biome tiles (e.g., **3 Biome Tiles**).
- **Purpose:**
 - Enables players to enhance their dinosaurs through biome buffs.
- **Strategic Use:**
 - Useful when players aim to strengthen their existing defenses by boosting dinosaur capabilities.

3. Mixed Bundle

- **Contents:**
 - A combination of path and biome tiles (e.g., **2 Path Tiles** and **2 Biome Tiles**).
 - **Purpose:**
 - Provides versatility, allowing for both path adjustments and biome enhancements.
 - **Strategic Use:**
 - Suitable for players who need to make minor tweaks to paths while also boosting defenses.
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Strategic Implications

1. Resource Management

- **Prioritization:**
 - Players must prioritize between altering enemy paths and enhancing their dinosaurs.
- **Adaptability:**
 - The random nature of biome tiles requires players to be flexible with their strategies.

2. Decision-Making

- **Assessment of Needs:**
 - Players must evaluate their current situation, such as weaknesses in their defenses or upcoming threats.
- **Risk vs. Reward:**
 - Choosing a bundle carries inherent risks and rewards, influencing future gameplay.

3. Replayability

- **Varied Gameplay:**
 - Randomized bundles ensure that each playthrough offers different challenges and strategic opportunities.

Placement

Paths cannot be placed during enemy procession. They may only be placed or deleted during breaks in play.

Upgrading Tiles

Players can pay to upgrade their paths to unique path types.

Path Types

Name	Effect
Basic	None
Tar	Slows ground based enemies
Poison/Toxic Mist	Damage over time
Lava	Damage over time

Spike Trap	Certain sized enemies can fall in
Freeze	Stuns
Filter Tile	Sorts bug into split paths based on bug traits
Train Switch Tile	Changes which path bugs are going down