
Infinite Legions

by Infinite Loop

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Infinite Legions

Introduction

Infinite Legions is a tower defense action game created in the Unity game engine. It was created at The Ohio State University for the Game Design and Development Project. The game was designed like a tower defense game where the player places towers along a fixed path to stop enemies from walking along the path. Unlike traditional tower defense games, Infinite Legions allows the player to directly control and fight as a viking warrior. The player can also direct a small army of soldier called “minions” to aid them in defeating the enemies.

How To Play

In Infinite Legions the player must prevent the enemies from reaching the player's castle. They can do this by placing towers and fighting back the skeleton hordes. The enemies will walk along a fixed path in the level, but the player must combine the strategy of tower placement and minion management to endure. The enemies will come in waves, which increase in difficulty as the player progresses.

Controls



- Swing Weapon / Select Options
- Movement
- Minion Formations
- Minions Attack
- Minions Fall Back
- Toggle Tower Menu
- Place Selected Tower
- Toggle Pause Menu
- Toggle Skill Menu

How to Win

The player must survive 5 waves of enemies in order to beat the level. A wave can be completed by defeated all of the enemies spawned on the map. Make sure the enemies don't reach your castle though!

Viking Mitch

You'll play as the powerful Viking Mitch! Use his sword and powerful magic attacks to cut through the waves. As you play through the game you will be able to unlock cool new attacks and spells for Mitch.



Minions

These are your minions. They are here to help you fight back those dreadful skeletons. They each have very different roles to help you out. You can have up to ten of these little guys at your side. They will follow you around and fight any skeletons that cross their paths. You had better use your formation and call back commands if you plan to beat back the skeleton horde.

Knight

The knight is your standard minion. They are well balanced and brave. When you send them into battle they will rush at enemy skeletons and attack them with their swords. You can use up to four of these little guys to aid you in battle.



Archer

The archer minion is a valuable ally to have. They will auto target enemies and fire arrows at them. The archer minion is not capable of melee attacks so it will typically stay near you. You may have up to four archers with you at once.

Mage

The mage minion can cast invaluable magical attacks. Its fireball spell makes those skeletons tremble in fear. You can only have one of these minions in your team though so use it wisely.





Priest

The priest is a very special minion. It doesn't have any abilities to attack your enemies but it offers a helpful healing spell that can heal Mitch and the other minions. This ability makes it a great addition to your team. You can only have two at once.

Towers

You can place towers to help defeat the legion of skeletons as they walk along the path. You can only place towers in the placement zones that appear. Towers also cost gold and can't be removed once placed. So make sure to think twice before putting down a tower!



Poison Tower

This tower can poison enemies. When poisoned they will continually take damage for a short time.



Lightning Tower

This tower shoots a lightning bolt that arcs between groups of enemies.



Bomb Tower

This tower can hurl bombs at enemies. Every enemy caught in the explosion will be injured. The explosions are powerful but have a slow fire rate.



Fire Tower

This tower will set enemies on fire. When enemies are on fire they will take burn damage until the fire goes out.



Ice Tower

This tower will fire ice magic at enemies. If it the enemies will start to move slower for a fixed amount of time.

Levels

Infinite Legions offers 4 unique levels. Each of these levels offers a variety of challenges to change up the gameplay.

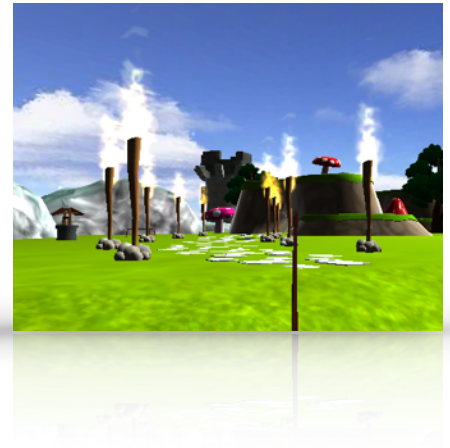
Frosty Wasteland

Frosty Wasteland is a frigid location filled with rocks and crystals. It is home to the crystal cave which has been overrun by King Skully and his skeleton legions. Make sure to watch out for the tunnel path!



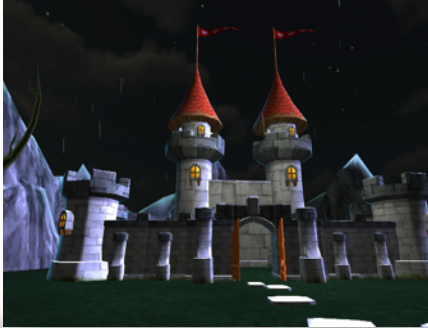
Mystic Isle

Mystic Isle is a cluster of magical islands. It is generally a very peaceful place except for the island that holds King Scully's Castle.



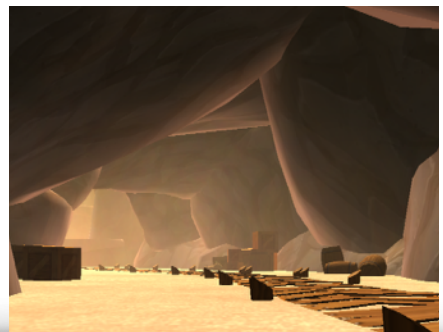
Dark Night Valley

Dark Night Valley is a creepy place, some say it was King Skully's home for a time. This level is very complex, it contains many paths that you'll need to keep an eye on.



Dusty Dunes

Dusty Dunes is a wide level with lots of sand. The skeleton legions are after your castle oasis. It is up to you and your minions to make sure they don't get it. The paths are often obscured by large desert mountains, so don't get caught by surprise!



Enemies

Skully Grunt

Skully grunts are the weakest of the skeleton legion. They make up for their weaknesses by gathering in large numbers. They will attack if provoked but they will not stray far from the path. Their only goal is to get to your castle!



Skully Warrior

Skully warriors excel at close combat. They are armed with swords and shields and will attack you and your minions if you get close. They will chase you as soon as they see you, so be careful!



Skully Archer

Skully archers are quick and crafty. They are skilled at ranged attacks. However they have no way to defend themselves against melee attacks. They will flee away from you if you get too close. It is best to give them a taste of their own medicine and take them out with ranged attacks.



Skully Mage

Watch out for skully mages, they are very crafty. Their spells are very mischievous. No one really knows what kind of magic they can perform.

King Skully

King Skully is the leader of the skeletons. He is the largest and most powerful skeleton. He can be found hiding out at the enemies base.



GUI Bars



Wave Count - This bar shows how many waves that you have survived.



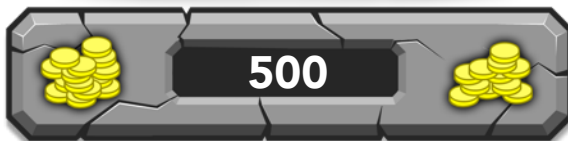
Health Bar - This bar shows your current health. Don't let it run out!



Mana Bar - This bar will decrease as you use magical attacks. It will refill over time.



Experience Bar - This shows the experience you have obtained so far.

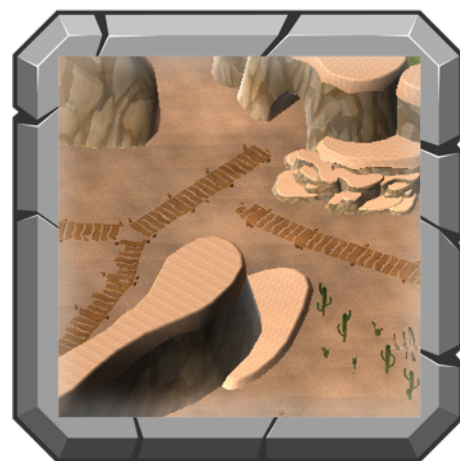


Gold - This is the amount of gold you have. Be careful not to run out when placing towers.



Castle Health - This represents the number of enemies that can reach your castle. If it reached zero you will lose.

Mini Map - Use the mini map to check where the enemies are coming from. The scroll wheel on the mouse will let you zoom in and out.

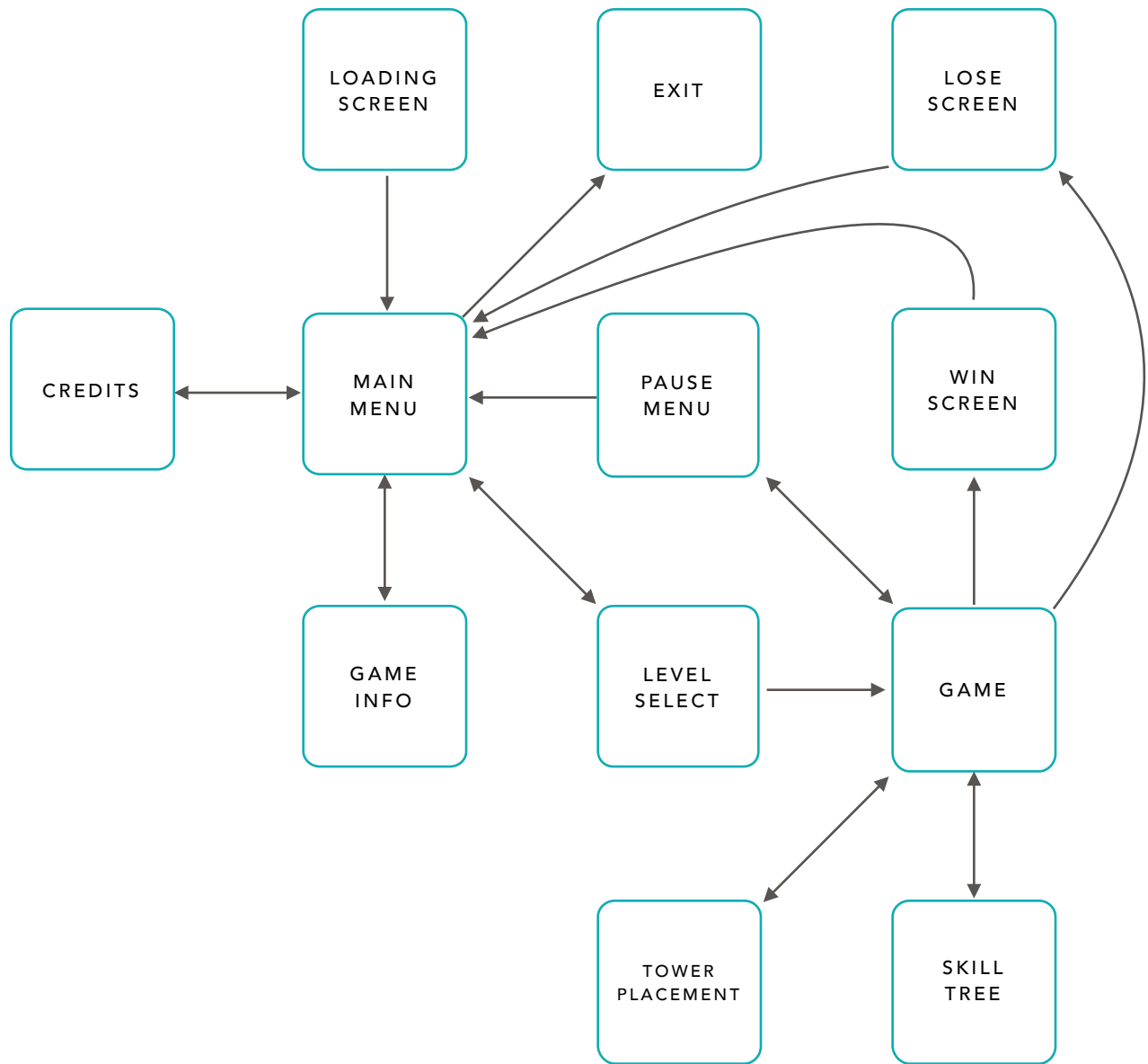


Skill Tree

Infinite Legions also has many abilities that players can use to defeat the skeletons. However, these skills will have to be unlocked. The player can pull up the skill tree at any time and use skill points to unlock these abilities. Every time a player levels up they receive one skill point, which means that they can unlock one new skill. So collect lots of experience orbs to gain those skill points!



Game State Diagram



Game Design

Artificial Intelligence

Infinite Legions features a lot of artificial intelligence. Developing the AI for our game took the largest amount of time. We have several enemy types and several minions. They each have their own abilities and behave differently given their surroundings. To make our game more interesting we set a goal to give each enemy type some sort of special behavior, something to differentiate it from the others. For example, the archers will shoot arrows and flee from the player but the warriors will rush towards the player and attack with their swords. We strongly feel that these differences make the game feel more polished and fun. We've carried this belief over to the minions as well. Knight minions will rush into battle but priest minions will avoid confrontation and heal the others.

Navigation

Infinite Legions has many enemies and minions that are required to properly navigate across the levels. All of these moving elements have to function in a way that allows them to walk around the elements of the map. To do this we are using Unity's navigation mesh feature. This allows us to control where the object is walking while Unity handles how it gets there. To do this we had to tell Unity which level objects remain static and then "bake" in the navigation mesh. The bake stage calculates where the walkable areas are and must be done prior to runtime. This is because the baking process takes some time. Unity's navigation mesh feature has really allowed us to easily manipulate objects in our game and saved us a lot of time.

Level Design

Infinite Legions offers 4 maps for the player to play on. Every single one of these maps has been hand made by us using the Unity editor and the Toon Level Kit assets that we acquired. When designing our game we originally thought that procedural generated maps would make the game far more interesting. However our thoughts changed once we began breaking down how this game would work. Infinite Legions is a tower defense game that involves a fair bit of strategy when playing.

We felt that in order to make the game more challenging we needed to create the maps by hand. The game needed to pit the developers against the players. The maps

needed to be designed to offer both advantages and disadvantages to the player. You can see this in levels such as Dusty Dunes. The level has many large rock walls that block areas of the map from the player. These walls block the players view of sections of the enemy paths. This was designed to keep the player moving. We wanted to make the player constantly run around the map to make sure all of the key path points are secured.

Credits

Art Assets

Skeleton Pack by BITGEM

<http://u3d.as/content/bitgem/skeleton-pack/3GW>

Toon Level Kit by Hedgehog Team

<http://www.assetstore.unity3d.com/#/content/4679>

SD Knight, Magician, Priest Pack by CoingStudio

<https://www.assetstore.unity3d.com/#/content/11359>

Cartoon FX Pack by Jean Moreno JMO

<https://www.assetstore.unity3d.com/#/content/4010>

Tower Defense RTS Human Towers by 3DForge

<https://www.assetstore.unity3d.com/#/content/10817>

Mini Viking Eric by BITGEM

<https://www.assetstore.unity3d.com/#/content/9422>

Sound Assets

Game of Thrones - Load Screen

Magicka - Grass Level

Dungeon Defenders - Main Menu

Hailfire Peaks (Ice Side) - Banjo Tooie - Ice Level

Dark Knight - Tanner Helland

Game Engine

Powered by Unity