



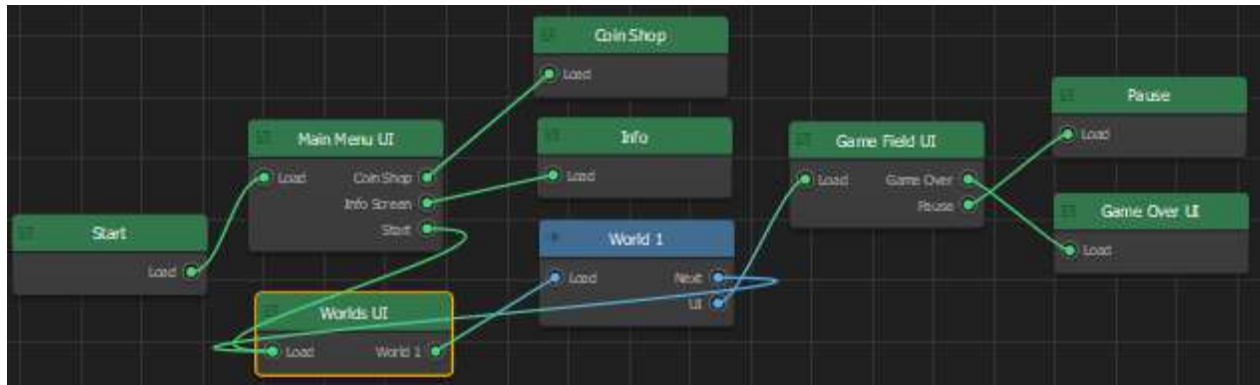
# Andhra Pradesh State Skill Development Corporation



## Game Development Using Buildbox

### Game Mind Map

## GAME MIND MAP



### 10.1 Mind map

This screen shows an overview of the Buildbox menu structure for your game, including what screens allow you to navigate to what other screens. There are two types of Screens:

- **Scene Screen (blue):** In versions of Buildbox prior to version two, there was only one of these. This is a game-play screen. It houses the levels only - there are NO UI controls set here. To setup game play UI you need to create a UI Screen, and link it to the UI item in the Mind Map.
- **UI Screen (green):** Ads and UI elements.
- **Start (green):** A special screen that has only a single exit point – Load. For more details, see Start Screen.

A new game will have a ‘standard’ layout based on your choices on the Creator screen. You can add additional screens by right-clicking on the background. A popup menu will ask you what type of screen you want to create. You can also duplicate an existing screen by pressing ‘D’. To remove existing screens, click on one to select it, and press the [delete] key.

Entry points are on the left, and exit points are on the right.

To link Actions on screens together, click and drag from one named element to another. There is a lot of flexibility, and it is up to the user to determine what connections make sense.

To edit a screen’s options, simply click on one of the boxes, and look to the right, and it will highlight, as shown, below.



## 10.2. Mind Map

### UI Screen Options:

- **Name:** Name of the screen for your reference. This will appear on the mind map and in menus.
- **Ad Interstitial:** What ad network will show on this screen. Note: if you select an ad network that is not on the platform you are exporting, no ads will show on this screen (eg if you select Vungle and export to PC, there can be no ads shown as there is no such thing as Vungle on the PC at the time of writing). Select None, or any of the ad networks, listed, including the following special option:
  1. Custom for iOS and OSX only – allows you to call custom code for this screen. You could use this to implement your own ad lib, or for anything you want to happen for a particular screen. You need to export the game, then edit the following:
    - AppDelegate.m file:
      1. (void)showCustomFullscreenAd{}: This will get called when Buildbox needs to display an interstitial.
      2. (void)loadingDidComplete{}: This is not strictly limited to custom ads, however it is called on game load, so you may wish to use it to initialise your code for use later (eg call startup ad caching for faster ad display).
- **Ad Banner:** For screens that support banners, what banner should show.
- **Ad Interstitials Freq.:** 0 means no ads. 1 is every time the screen is shown, 2 is shown every two times this screen is shown, and so on.
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- **Music:** Drag and drop an mp3 file for music to any music to play on this screen. If you use an identical mp3 file for music on several screens, Buildbox™ will currently store that several times. Note that there is no need to do this, given that many of the screens are overlays (like the pause screen for example) so you would only put in another sound file if you wanted to override the music already playing.
- **Loop Music:** If ticked, the music will play continuously. If not ticked it will play once and stop.

## Game Screen Options:

Prior to BuildBox 2.0, these were the World settings under the game setting, Advanced screen. With the advent of BuildBox's multiple game screens, we have multiple worlds i.e. entirely different game play. To provide that flexibility, the settings were moved, here. The World settings are:

- **Gravity (x and y):** Continuous force acting on everything as gravity does in the real world.
- **Time Warp:** How long to wait before adding 'speed increase' to the current game speed.
- **Game Speed Min:** Start speed at which game will move past the player (regardless of player movement).
- **Game Speed Max:** Final maximum speed at which game will move past the player (regardless of player movement).
- **Speed Increase:** Amount to add to speed increase.
- **Friction:** Friction between all objects.
- **Velocity Drag:** Force used to slow anything that is moving down. Directly opposes all movement unlike air-drag for character, though very similar.
- **Bounce:** Bounce force between all objects.
- **Score Multiplier:** Scoring is 1 point per pixel moved. A value here will increase that. Eg value of 10 will mean 10 points per pixel.
- **Game Direction:** In clockwise degrees where 0 has the character moving left. -90 will be moving up, 90 will be moving down, and 180 will mean moving left.
- **Back Deletion Threshold:** How far off the back of screen – behind the Player – do objects need to be before being deleted.
- **Sides Deletion Threshold:** How far off the 'sides' of the screen – perpendicular to Game Direction – do objects need to be before they are deleted.



## Screen Names:

Prior to Buildbox 2.0, screens and screen names are fixed. If you have an old project that successfully upgrades, you should see most screens coming through with their old names. The list of old names is listed here to show you how you may use multiple UI Screens and Game Fields.

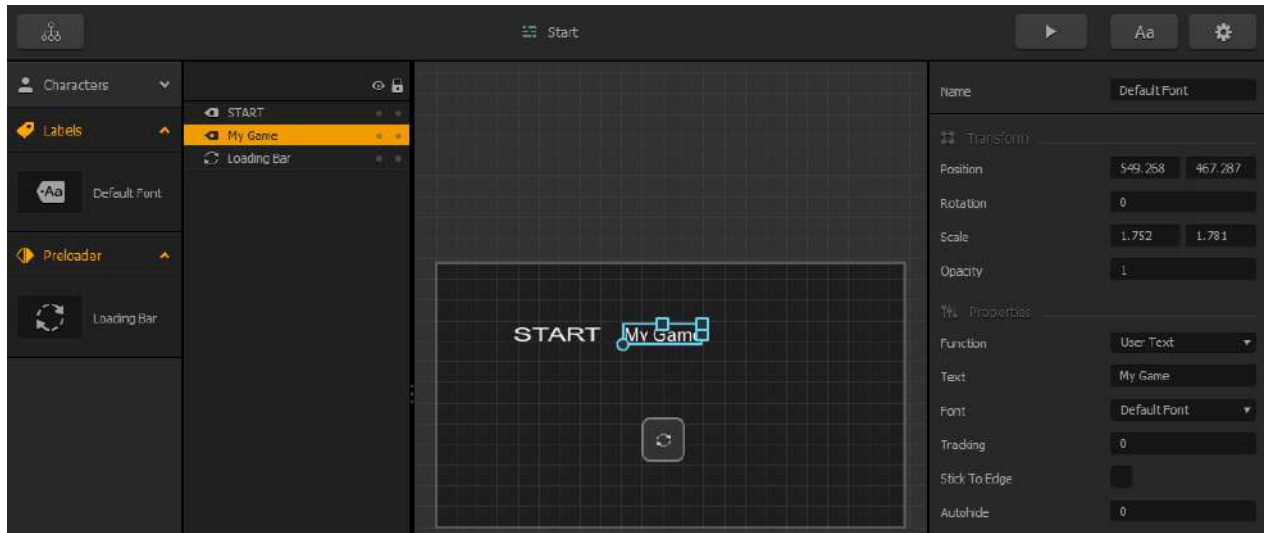
- **Start:** first thing the user sees when the game is launched. A special screen with no options on the Game Mind Map screen.
- **Main Menu:** as it says, the “Main” menu - the purpose for this to allow users to navigate to other screens.
- **Shop:** This is where you will sell IAPs if you have any, for platforms that support IAPs.
- **Game Field:** shows when the game is playing. It is where you will create on-screen buttons for movement, etc of the character.
- **Game Over Screen:** shows when the game has ended and the game lost.
- **End Screen:** this is the screen displayed when the game has been won – by collecting an Action with an *Action Type* of “End Game”.
- **Pause Screen:** shows when the game has been paused.

## Game End Screen:

As of Buildbox 2.0 there is no Game End screen. You can choose to send the player to a UI Screen or another Game Field Screen, depending on what you link the *End Game* action to.

## Start Screen:

This is a special screen that only appears on game-load. Once set up, you can see it only very briefly from the Preview screen (because the assets load very fast on a Mac/PC). It optionally has the starting image and a loading bar and labels.



## 10.3. Start Screen

### Change Background Image:

Simply drag and drop an image onto the editor – as you can see in the screenshot. There is only one option – Image. Keep in mind this image will need to make sense on various aspect ratios for different screens.

### Loading Bar:

To add a horizontal loading bar, simply drag this from the left, onto wherever you want it to be. You can have more than one, should you wish. The settings are:

- Position (x,y): as for any other placed item.