



Andhra Pradesh State Skill Development Corporation



Game Development Using Buildbox

Introduction to Assets



INTRODUCTION TO ASSETS

2.1 What is Asset:

Shorthand for anything that goes into a game – characters, objects, sound effects, maps, environments, etc. In gaming software basically any file in your project is an asset. So not only media files like pictures and such that others have listed, but also the software code files.

There it basically means ‘a file in the project’. That bears technical meaning: the system registers all those files, I mean assets, detects when they change, and converts them to a new version when needed etc.

How to Download Assets:

So you want to build a game and need some free assets to work with. It may seem like there’s not much out there but you have to look in just the right places.

Many times artists design their own concept art for games, or developers will build a game engine but not have any artwork to use. It gets even trickier when you’re designing graphics in 3D programs or using pixel art. But you can also find tons of free assets online that’ll save you time. And below these are favorite sites to find free assets, many of which go beyond simple game art to help you create an entire virtual world all your own. Top six sites to download assets for free, they are:

- **Opengameart.org:** The first and largest site you should check out is OpenGameArt. It was built as a free repository for free video game assets to help game designers build any kind of game they want. Best of the entire site was designed solely for Creative Commons art so you know everything on here is free to use.

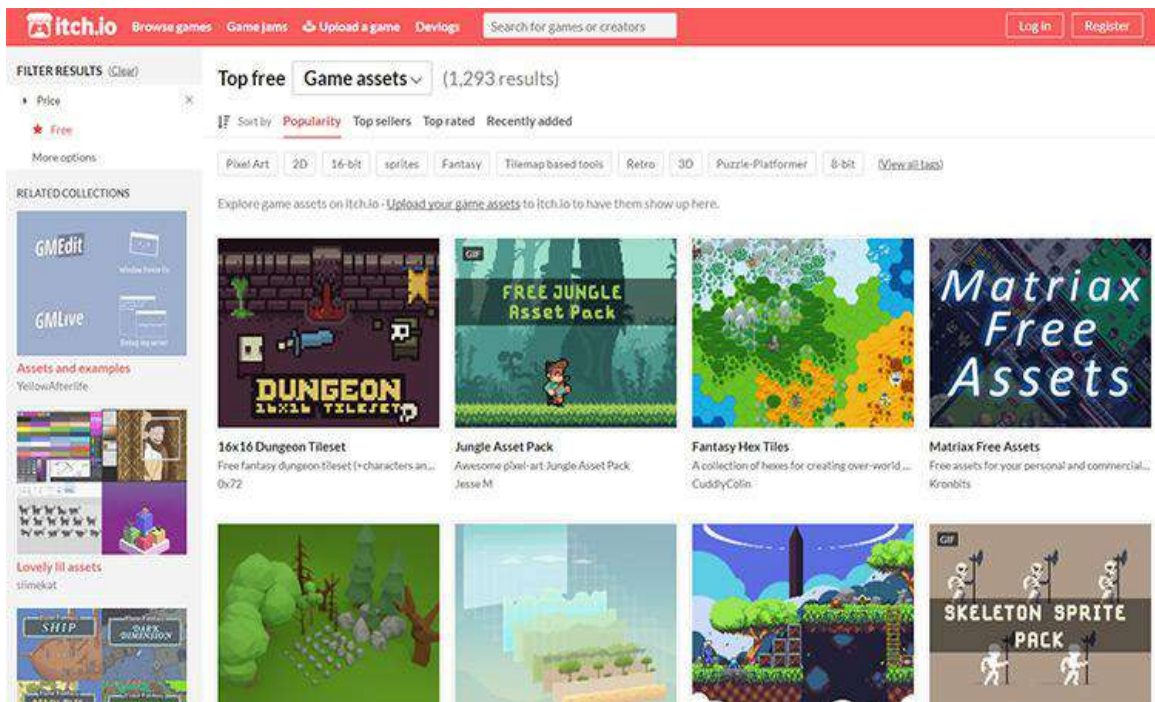
Many assets fall under a public domain license so you can use the artwork for personal or commercial works without credit. This site is absolutely massive and it’s got a ton of categories to browse through. You can find 2D art and 3D art along with tons of smaller categories for sound FX and background music. This site even has a place for concept art, all free and released for anyone to use.



2.1 OpenGameArt.org Webpage

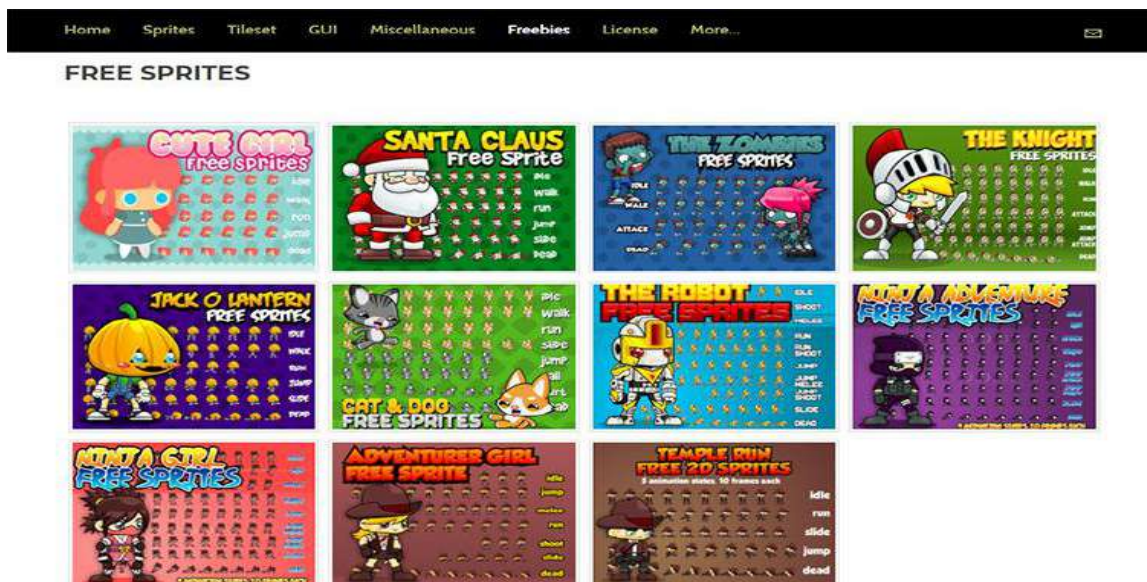
- **Itch.io:** The digital marketplace Itch.io offers a mix free and premium game assets. These work a little differently than OpenGameArt because you're not downloading assets under the same licenses. Not to mention a good portion of the marketplace is full of premium assets that you'd have to buy before using. Thankfully Itch.io has tons of free stuff too and you can find all of it under the free game assets category.

Make sure when you're searching that you filter the results based on what you need. Each asset looks a little different from 8-bit to 16-bit graphics or 3D renders for more complex games. The Itch community even sells a lot of completed games too. Some of those are totally free if you want to play around with other people's work. But if you're an artist or game designer then you'll really love the massive game asset collections. Granted you can find a lot more variety in the paid resources... but you can also save a lot of dough sticking to the free ones.



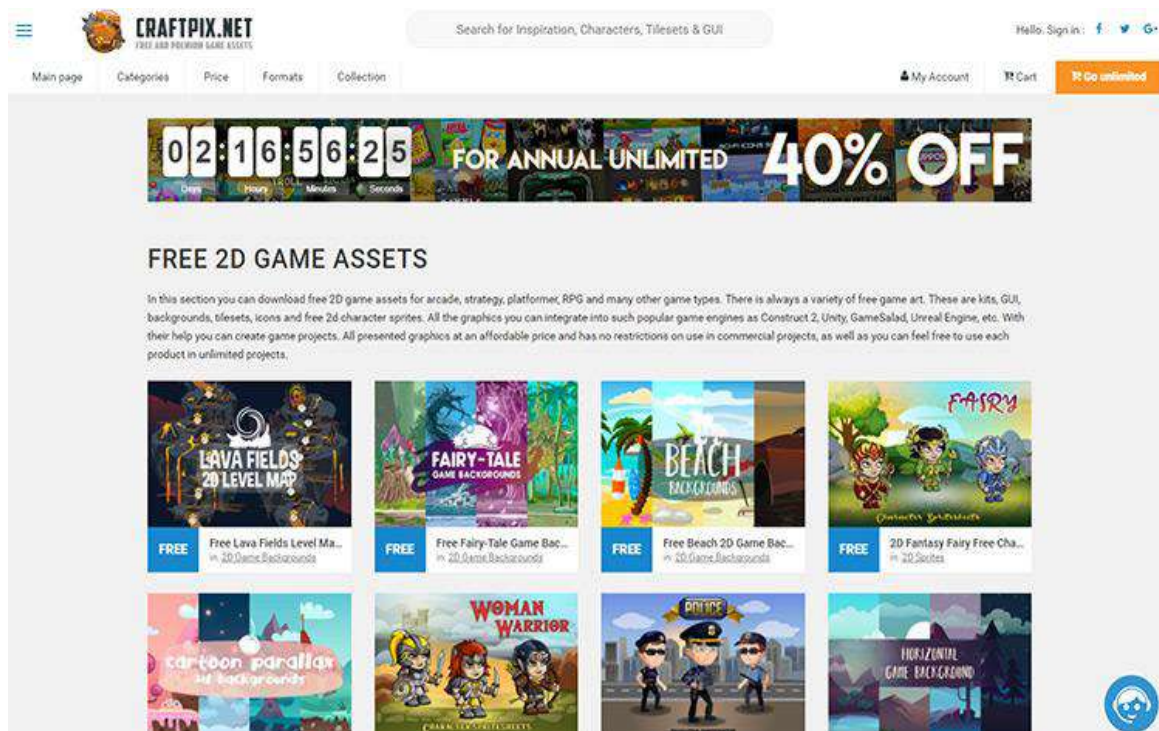
2.2 itch.io Webpage

- **Gameart2d.com:** GameArt2D.com is a place to buy royalty free 2D game art assets. It contains more than 100 items, from platformer & top down tileset, side scrolling & top down character sprite sheet, game GUI, space shooter asset, and many more.



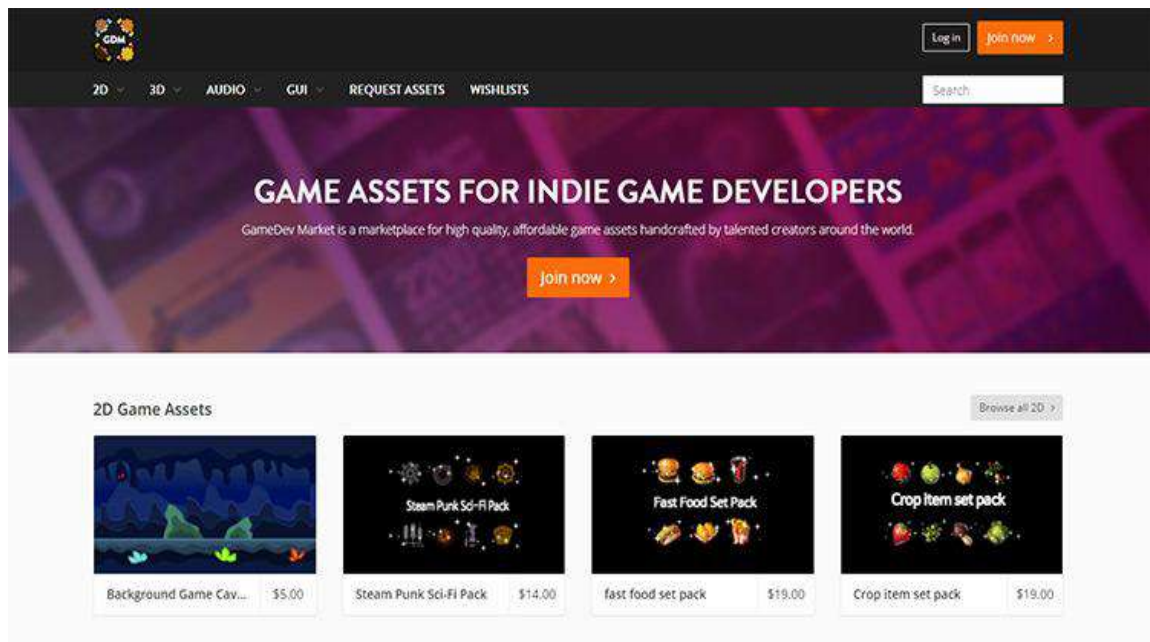
2.3 Gameart2d.com Webpage

- **Craftpix.net:** Craftpix offers high-quality premium and free 2D-game assets for your project. In this store there is 2D game art of the main categories: icons, sprites, tilesets, gui, characters, backgrounds, game kits and more. All presented graphics are sold at an affordable price and have no restrictions on use in commercial projects, as well as you can freely use each product in an unlimited number of projects. Assets can be integrated into such popular game engines like Buildbox, Unity, Construct 2, Unreal Engine, GameSalad etc.



2.4 Craftpix.net Webpage

- **Gamedevmarket.net:** GameDev Market works much like the Itch.io community where artists can sell their game artwork online for a fixed fee. But many artists release their stuff totally free just to hook in potential customers. To browse the free content look through the main menu and browse to whichever asset category you need. For example, if you hover “2D” in the menu and click “characters” you can browse all 2D character art. Then in the sidebar select “free” from the dropdown list.



2.5 Gamedevmarket.net webpage

- **Reddit.com:** Reddit has a community for basically everything. Naturally there are many subreddits on art but there's one that stands out for just game art. The /r/GameAssets community curates tons of free game assets from all over the web. It's almost like a fan-curated list of the best game assets that anyone can access. Submissions are primarily links to other sites that include free downloads for sprites, music, backgrounds, menu GUIs, you name it. Compared to many other communities this one is pretty small with only 9,500 subscribers. And it's not super active either with just a couple posts every week or so. But the mods are strict about submissions so this community is mostly spam-free and packed with tons of varying game assets. The biggest problem is the slow user base. Since this moves at such a snail's pace it probably won't be something you visit every day. But it is worth bookmarking to just search through the archives and see what you can find.

2.2 Creating Background and its Properties:



2.6 World Screen

The easiest way to add a character, objects, Actions and backgrounds is to drag and drop a PNG file onto the scene editor. As soon as the mouse is over the scene editor you will see the following overlay. Drop the PNG file onto the relevant segment. You should see the item appear in the asset bar on the left, and also appear in the current scene you are editing.

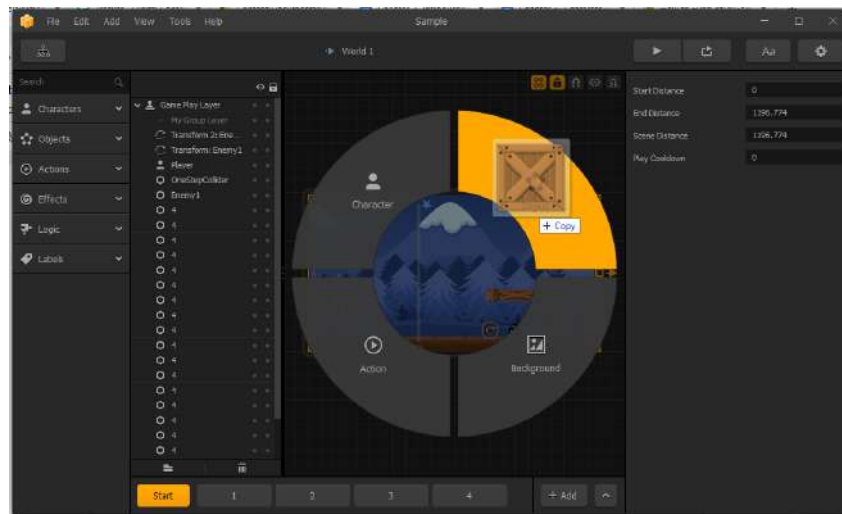
Background Properties:

The following properties are available:

- **Position(x,y):** Object position in scene.
- **Rotation:** Rotation of the background image.
- **Scale(x,y):** Allows resizing and distortion of the background image.
- **Opacity:** How transparent. 1 is fully opaque and 0 fully transparent.
- **Image:** This is a PNG dropbox.
- **Speed:** The speed the background will move. Different speeds on different background layers will show a nice parallax effect.
- **Tiling Offset:** Not usually needed, however this lets you change the point at which the background image is butted against the next section for tiling.
- **Fixed Rotation:** Keep tiling images straight up and down even as the background is rotated. To see this effect it is best to play with a rotated image and see what happens with the setting ticked or not.

Keep in the mind the game direction setting when setting up your background.

2.3 Creating Platform and its Properties:



2.7 Creating Platform

The easiest way to add a character, platforms (object), Actions and backgrounds is to drag and drop a PNG file onto the scene editor. As soon as the mouse is over the scene editor you will see the following overlay. Drop the PNG file onto the relevant segment. You should see the item appear in the asset bar on the left, and also appear in the current scene you are editing.

Platform Properties:

Preset: List of standard object types. These are a quick base only. Once you select you preset, you can change all the settings – nothing restricts you.

- **Platform:** This is a non moving object that is often used for a platform for the characters to walk on.

Object Type: How the object moves

Fixed: Objects will not be affected by forces of gravity or other objects working upon it.