ATL Game Development Platform

NITI Aayog

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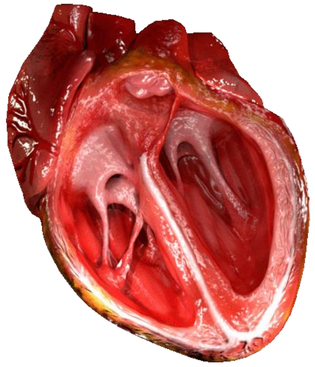
Day 06

Introduction to Construct - 2



By Mr. Jitender Kumar &
Ms. Supriya Kadam from
Learning Links Foundation

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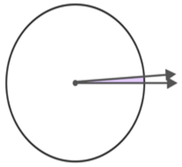
Agenda of the day

01 Reflections of Week -1 (Day 1- 5)



02 Introduction to Construct with Features, Installing Software and Downloading Asset

03 Construct Interface, Creating Layouts, Layers, Objects, Projects and Setting up Menu Layout and Menu Event

04 Home Assignment, Q&A

Reflections of Week -1 (Day 1-5)

- Introduction to Scratch
- Building STEM based Animations/Project/Games
- Cyber Security

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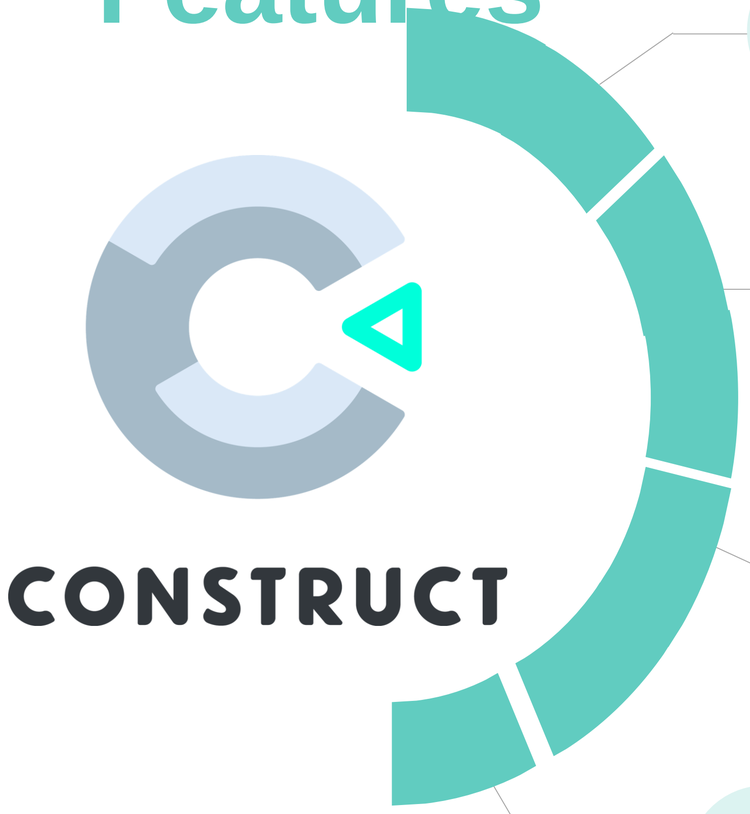
Introducing the Construct 2 Game Engine

- ✓ Construct is for anyone who want to create games but do not have enough knowledge of programming language.
- ✓ Construct is one such popular & interactive game development platform that offers fast, cross-platform game development.
- ✓ It has a powerful event scripting system that aims at non-

Construct Game Engine Features



- ***Popular and Interactive***
- ***Built for Non-Programmers***
- ***2D Game Development Interface***
- ***“Drag and Drop” method of programming***

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Installing Construct

STEPS

To download the latest release of Construct 2,
visit:

http://www.scirra.com/construct2/releases/new

***NOTE** : Remember to stay up to date and use the latest version of Construct 2.*

Once Construct 2 is downloaded, the Setup will begin to install it to the computer. Click Next > to advance through the steps.

***NOTE:** Construct 2 can still be installed on limited user accounts without administrative access. (Eg - workplaces, schools, public computers)*

***NOTE** : The browser or Windows may show a security warning before setup. Ensure the publisher is **Scirra Ltd** before running.*

Things to keep in mind

Versions of Construct
Construct comes in 32-bit (for older computers) and 64-bit (for newer computers).
If you're not sure you can leave the setup to auto-detect.

If setup fails:
Try a portable installation instead. Install Construct 2 to a removable drive on a computer you can run the setup on, then try taking the removable drive to the limited computer and running it from the drive.

Recommended system requirements

- **Windows 7 or newer**
- **2 GB RAM**
- **2 GHz dual-core processor**
- **A nVidia or AMD graphics card**

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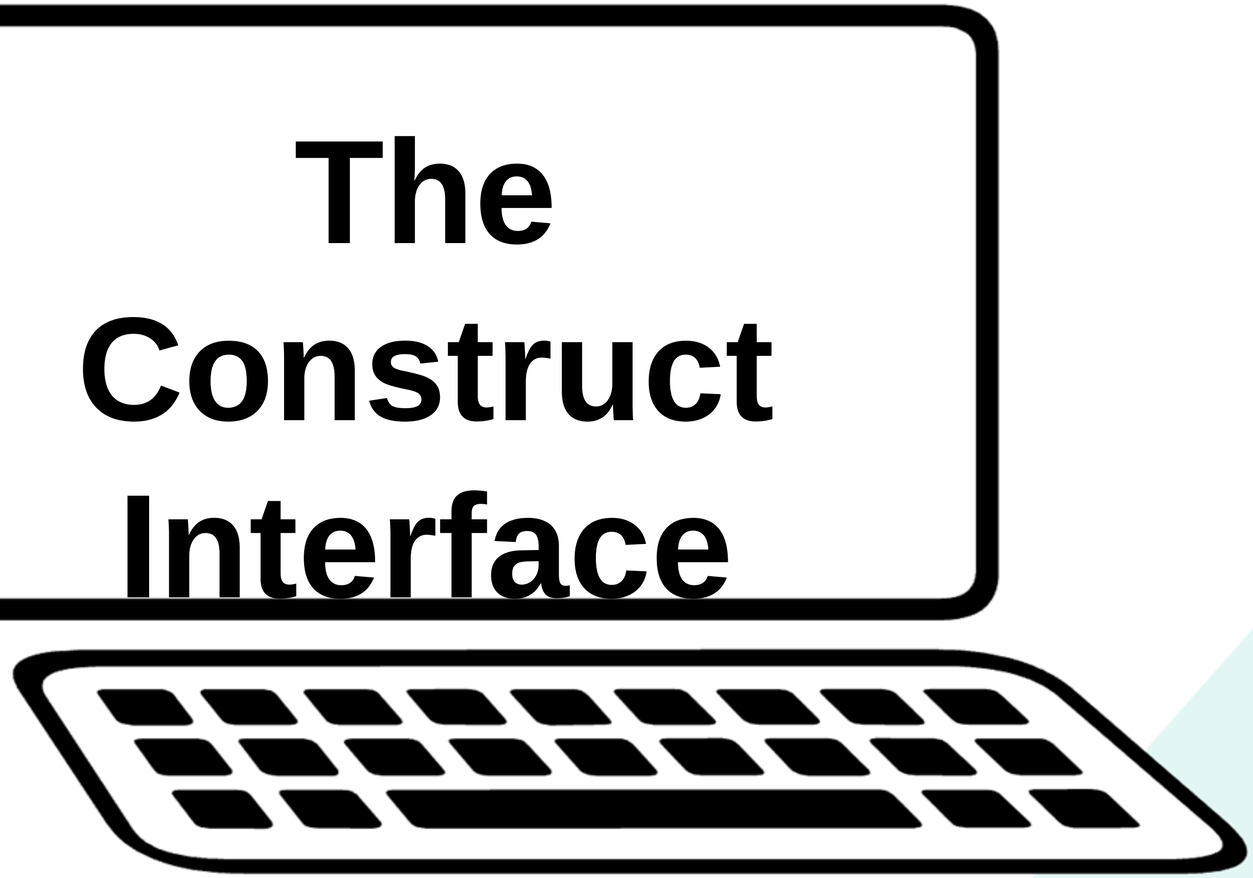
The Construct Interface

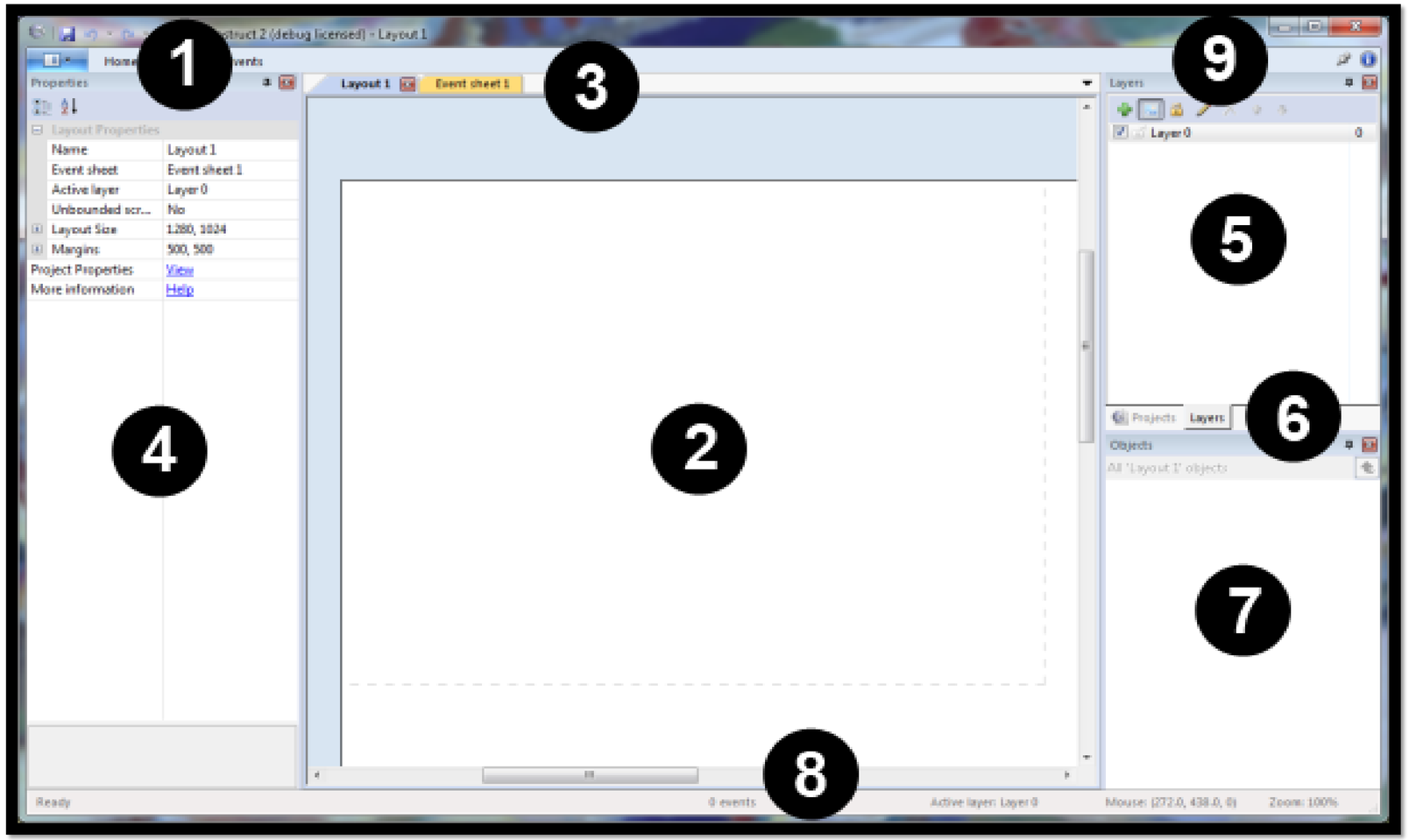


The Opening Screen

When we first start Construct 2,
we should see the
Start Page

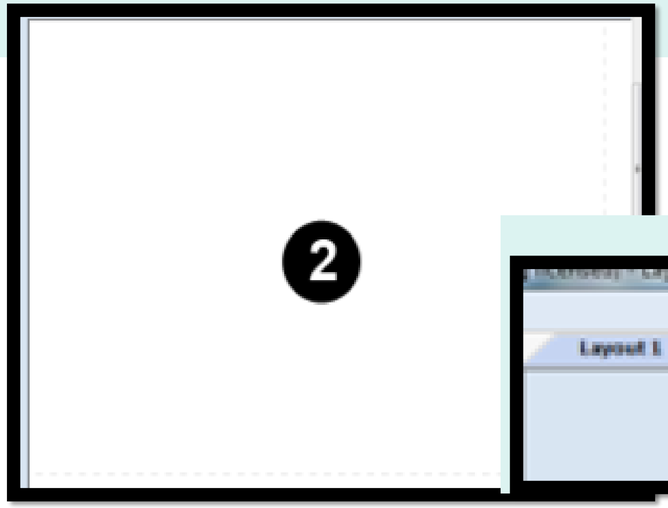
Look out for the useful links here such as Create a new project, Project examples and the Newest tutorials

Your Work Screen

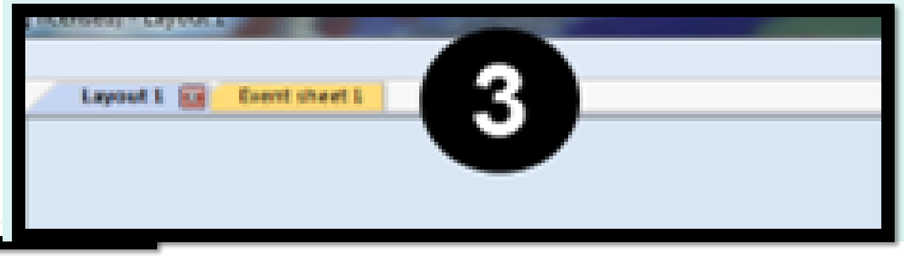


Your Work Screen

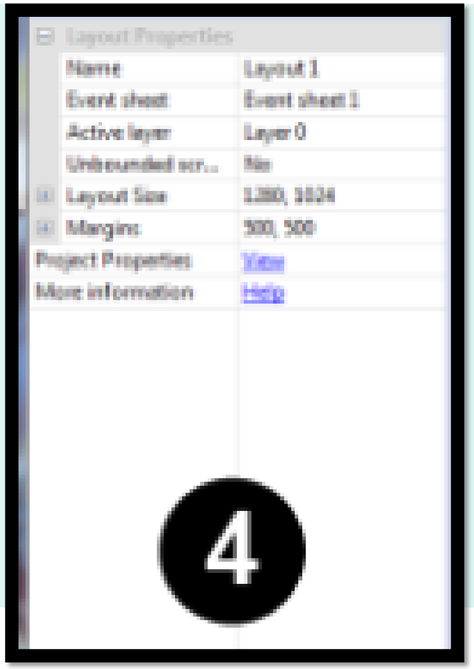
File Menu and Ribbon tabs



Layout View



View Tabs



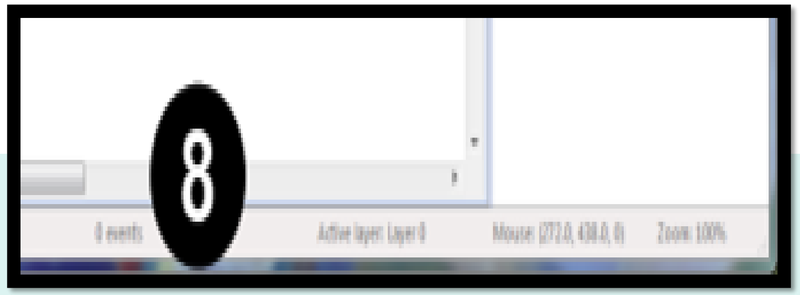
Properties bar

Project/ Layers Bar

Project/ Layers Tab

Object Bar

Your Work Screen



Status Bar

Top-right buttons

Note : Customising

- Any of the bars can be dragged and dropped to different positions in the editor window.
- We can *auto-hide* bars to save room: Click the pin icon on a bar and it will shrink to a simple tab. Hover the tab to pop open the bar.
- Bars can be hidden and shown in the **View** ribbon tab.
- We can create a **split-screen** view by clicking and dragging one of the layout or event sheet tabs in to the main view.

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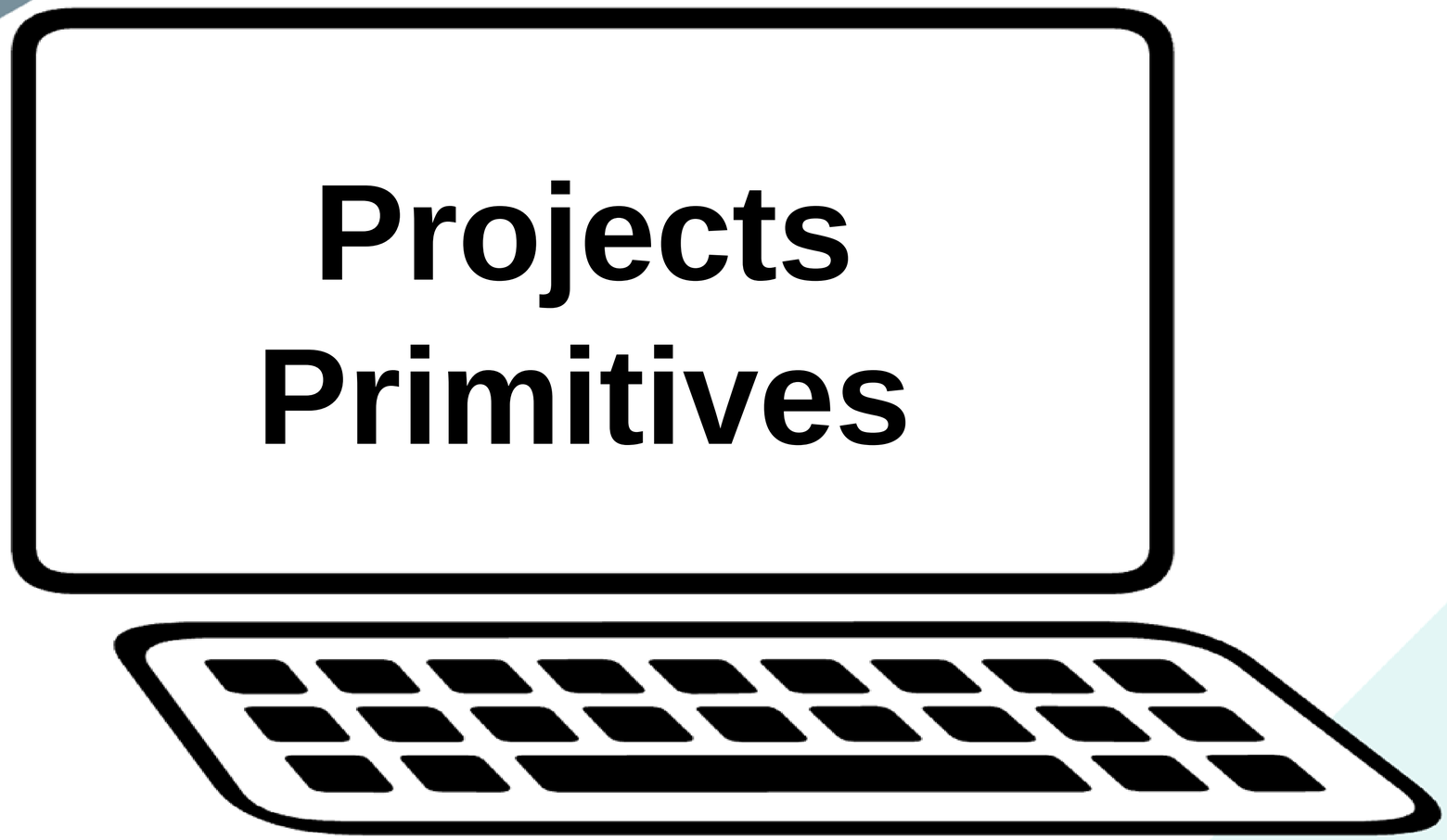
Projects Primitives



Projects & Project Properties

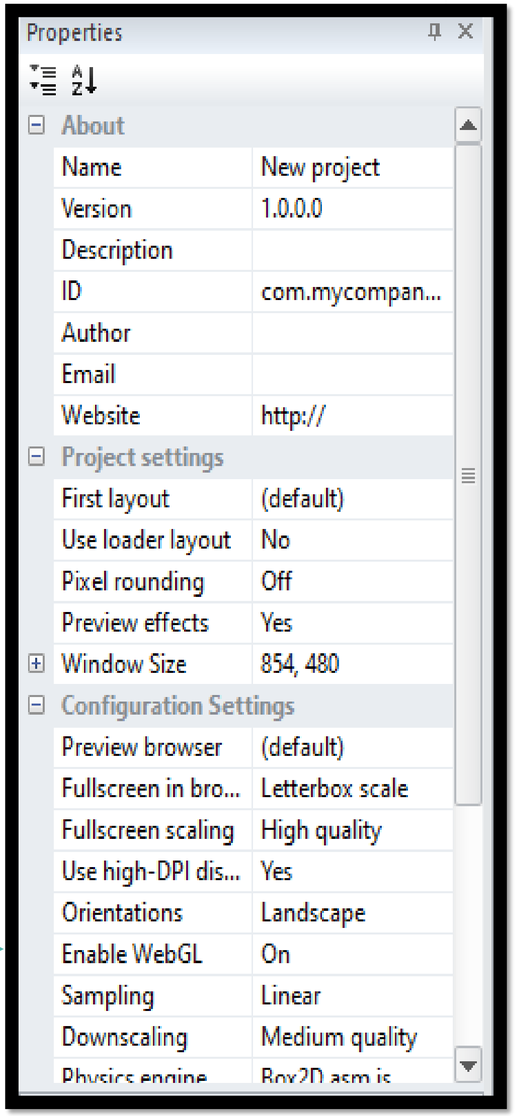
A project is a complete game or app made in Construct 2.

Projects contain every element making up the game, ranging from events to sound files.

An overview of the project is shown in the project bar. where elements can be added, renamed, removed and arranged in to folders for organisation.

*(Projects can be opened, closed and exported from the **File menu**)*

The properties for a project can be edited in the Project Bar or by using the Project Properties shortcut in Layout Properties.



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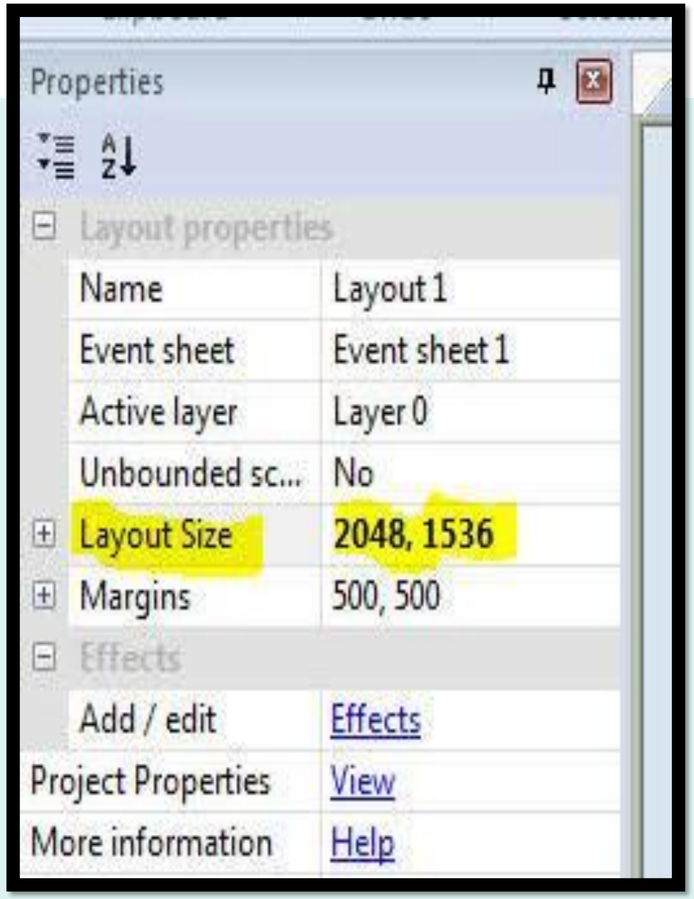
Layouts



Layers

Objects

Instance variables

Instance variables are added to an object type and store numbers or text per instance

Behaviors

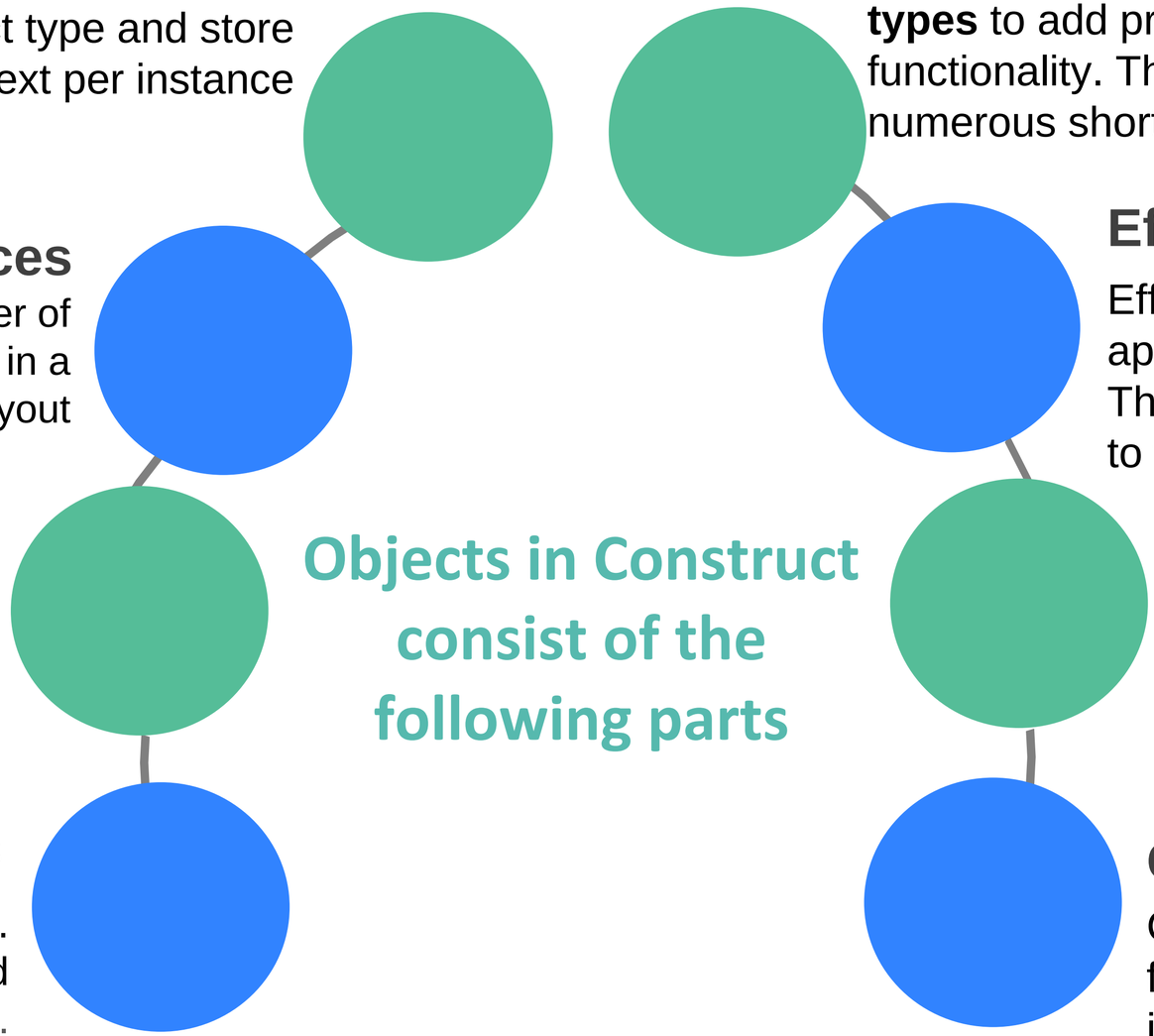
This can be added to **object types** to add pre-packaged functionality. These have numerous shortcuts

Instances

These are the number of objects of a particular type in a layout

Effects

Effects change the visual appearance of an object. They require WebGL support to function



Objects in Construct consist of the following parts

Object types

Object types define a 'class' of an object.

Families

They are groups of object types. That can help avoid repeating events in large projects

Plugins

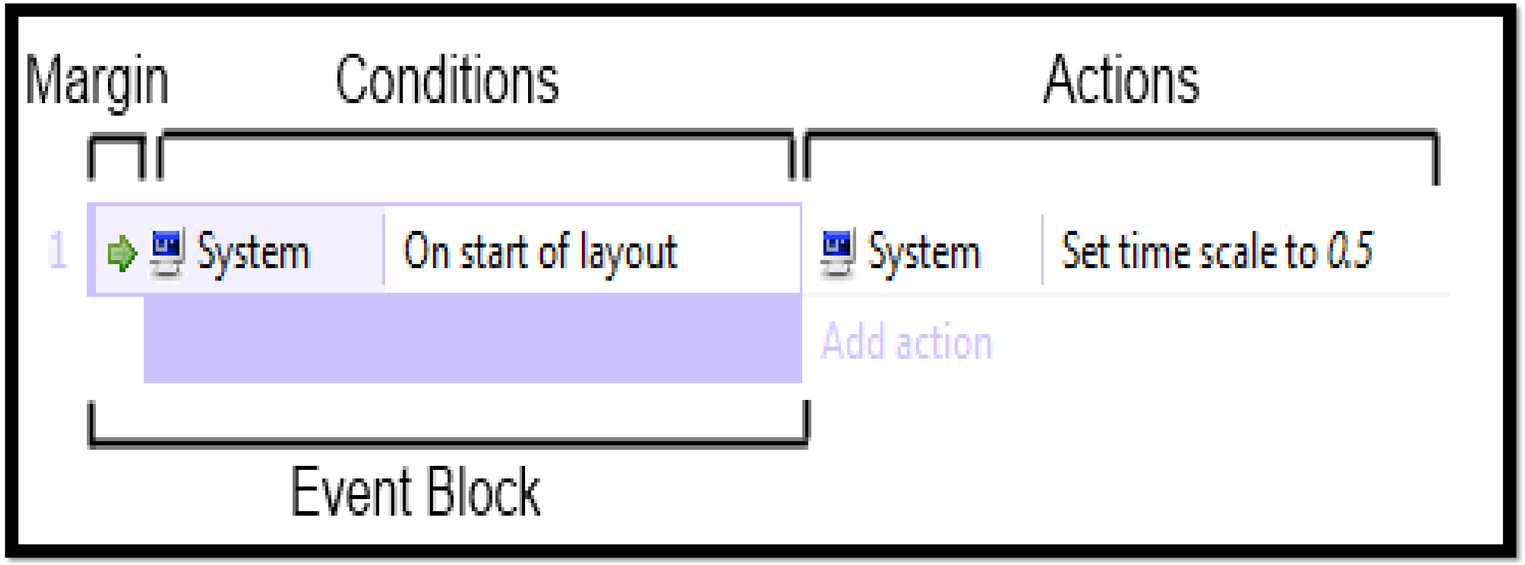
Plugins define a kind of object. For example, a Sprite is a kind of object..

Containers

Containers are an advanced feature for picking a group of instances at the same time in events

Events

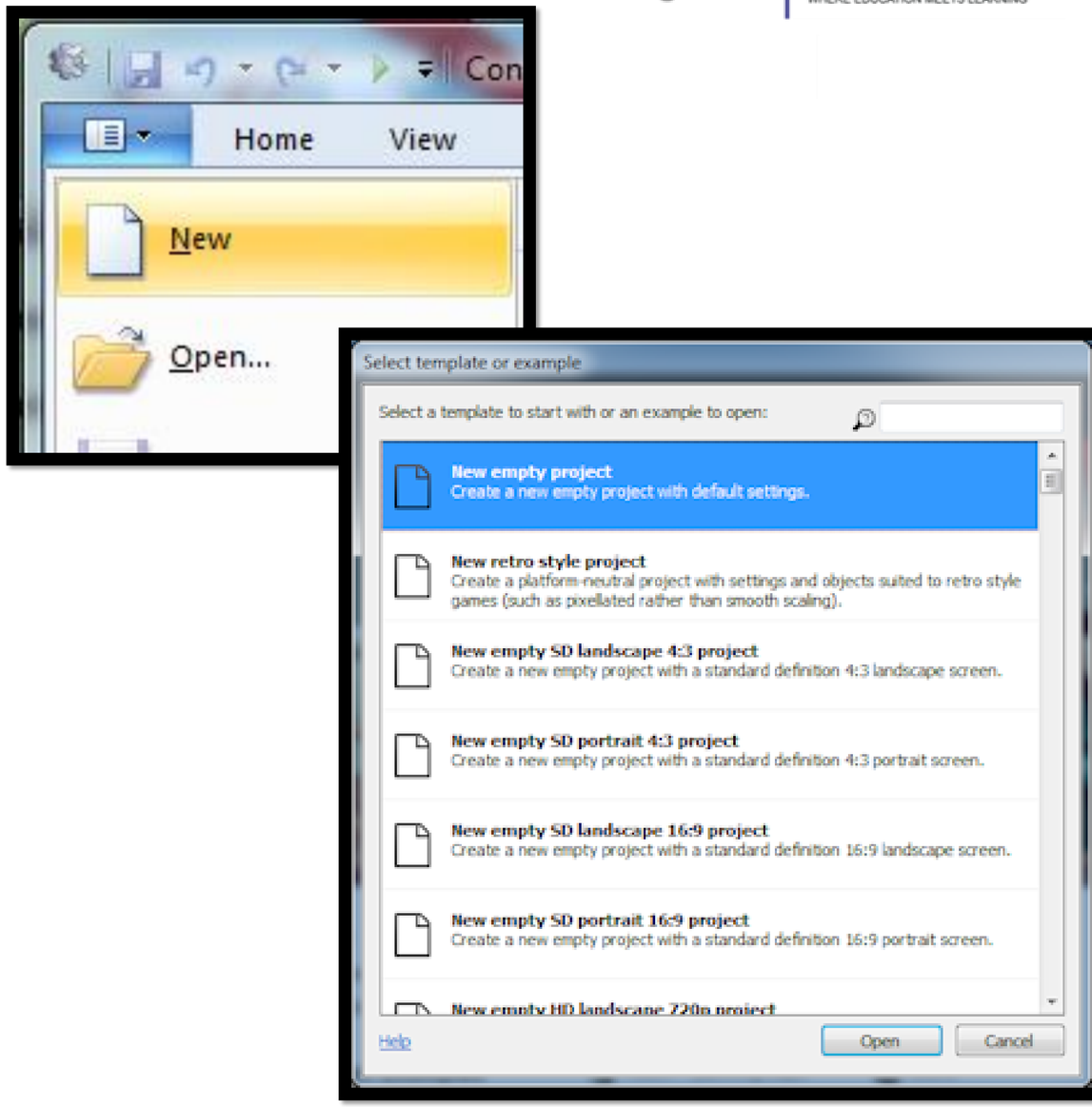
The basic concept of events is that conditions filter the instances meeting the condition, then the actions run for those instances only. This allows you to control instances independently, especially when used with instance variables.



- Conditions
- Actions
- Expressions
- Sub-Events
- Groups
- Comments
- Includes
- Event Variables
- Event Sheets

Creating a Project

- Launch Construct 2.
- Click the File button, and select New.
- See the 'Template or Example' dialog box.
- It shows a list of examples and templates that you can investigate at your leisure.
- For now, just click on 'Open' at the bottom of the box to create a blank, empty new project.
- We should now look at an empty layout - the design view where we create and position objects.

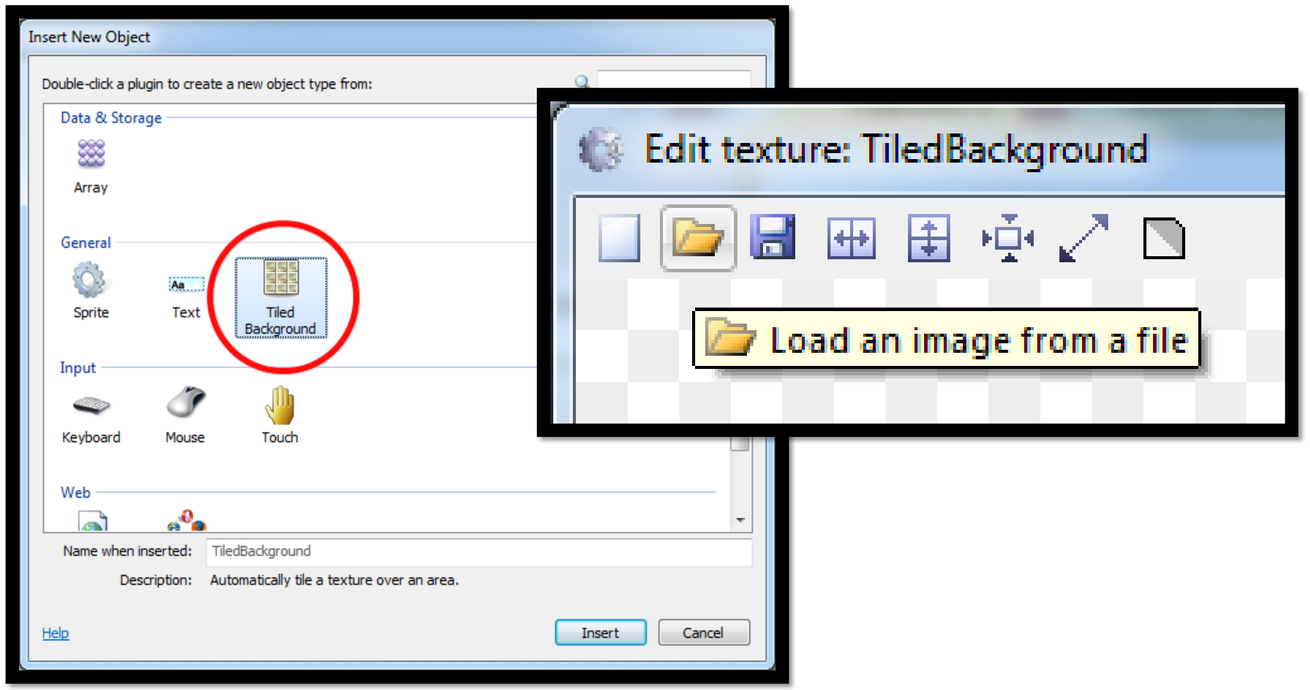


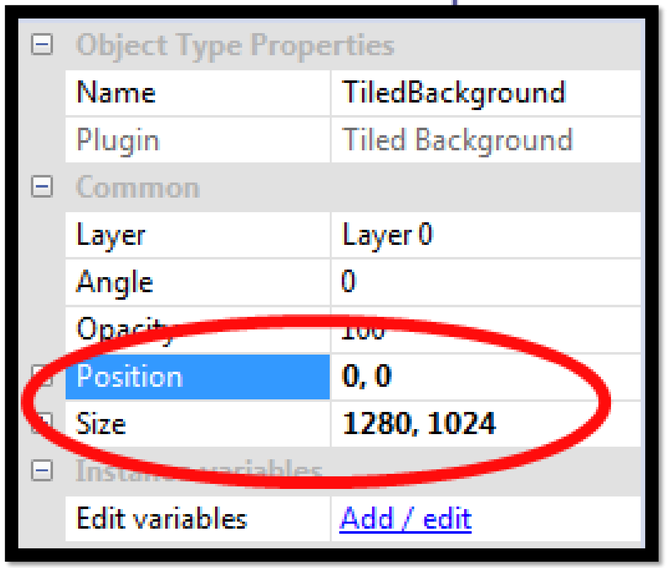
Notes: Construct 2 will keep the entire project in a single .capx file for us

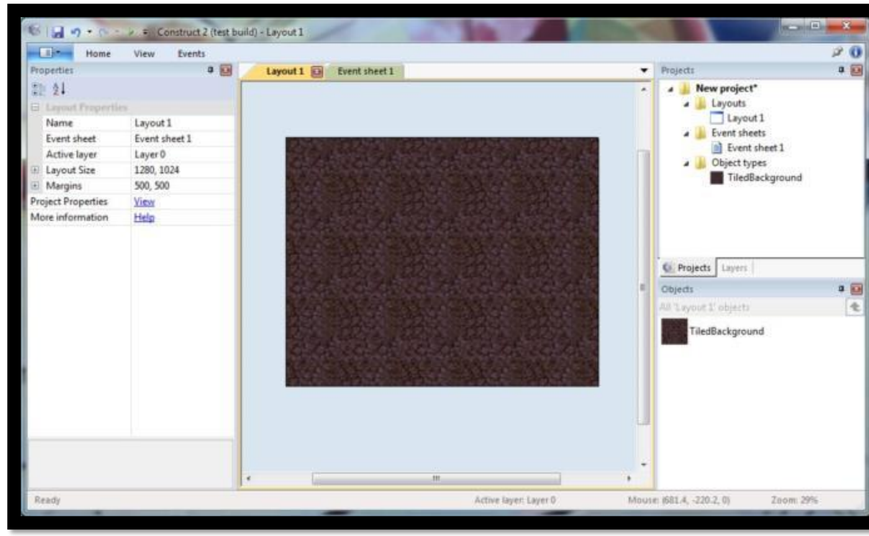
Inserting objects

Tiled background

- First, Download a background image and save it in computer.
- Now, double click a space in the layout to insert a new object.
- Once the Insert new object dialog appears,
- Double click the Tiled Background object to insert it.

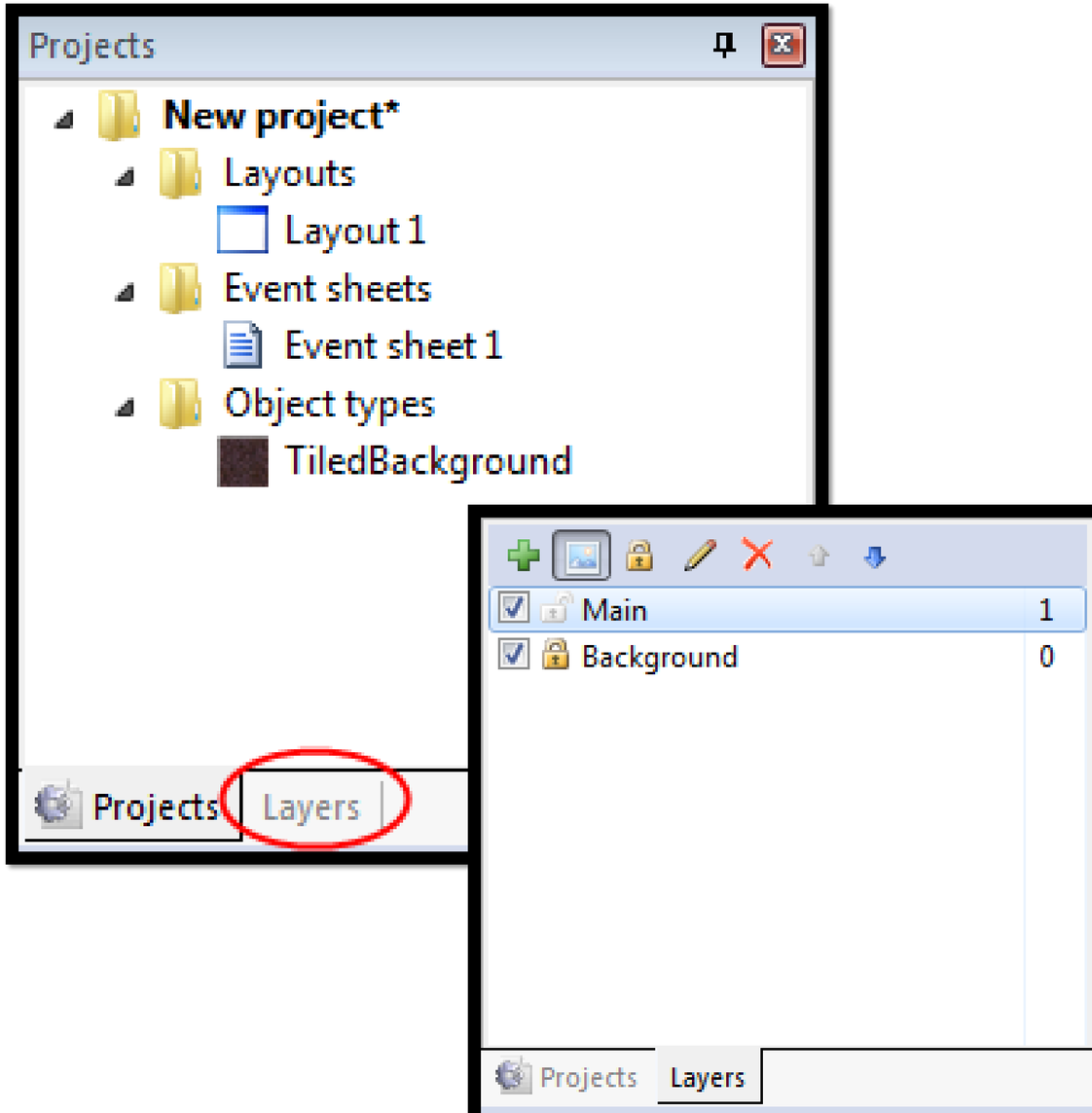




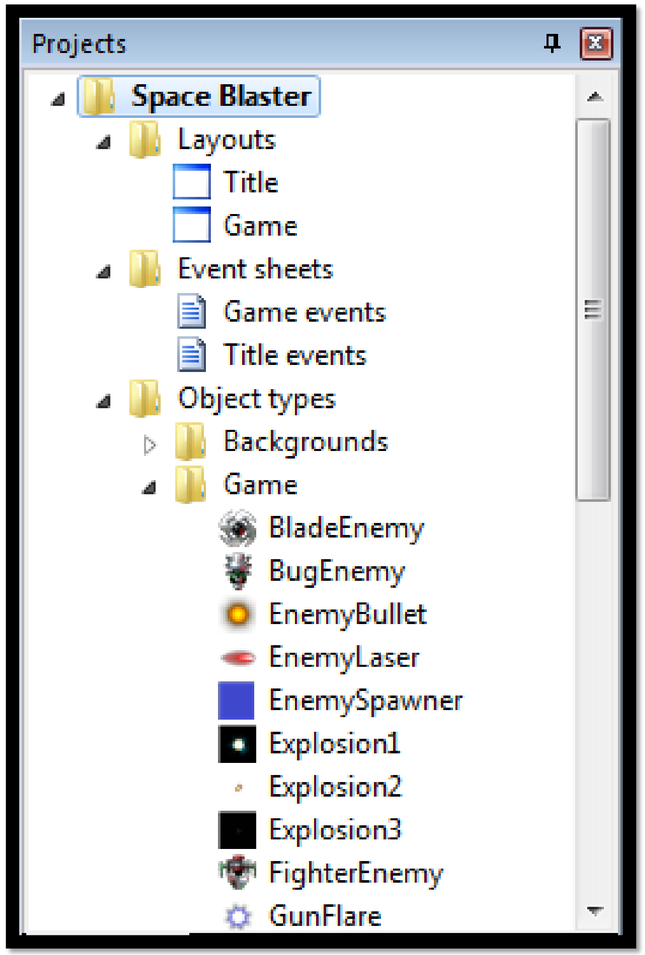


Adding a Layer

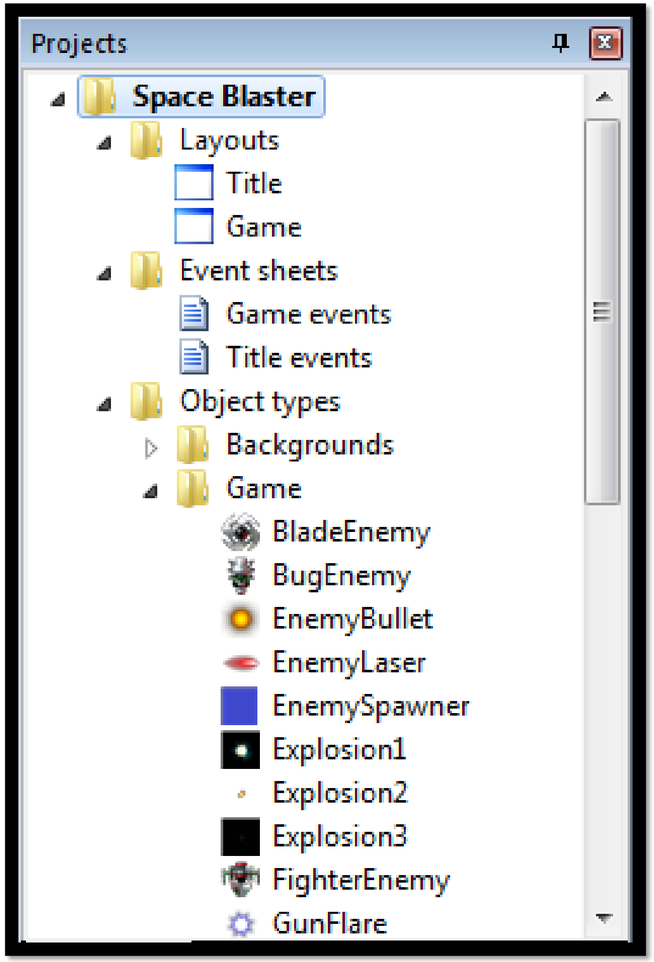
- Layouts can consist of multiple layers, which we can use to group objects.
- Imagine layers like sheets of glass stacked on top of each other, with objects painted on each sheet. It allows us to easily arrange which objects appear on top of others, and layers can be hidden, locked, have parallax effects applied, and more.
- For example, we want everything to display above the tiled background, so we can make another layer on top for our other objects.



Project Structure



Sample of project structure

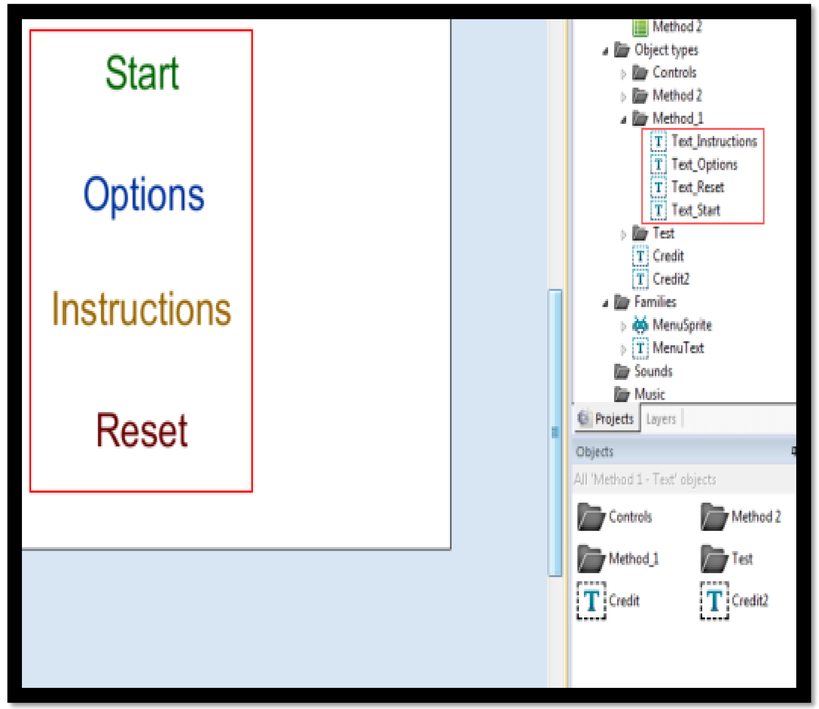


Sample of project structure

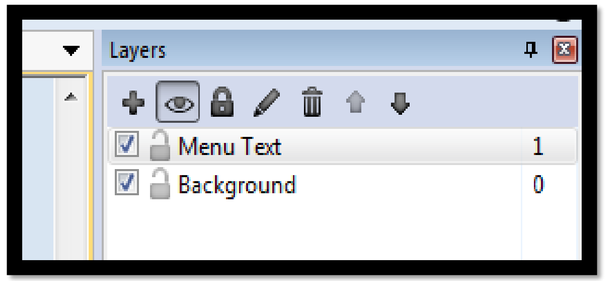
Setting up MENU

Text based menu

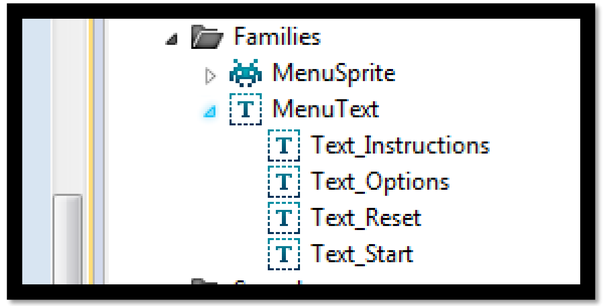
- Create text objects



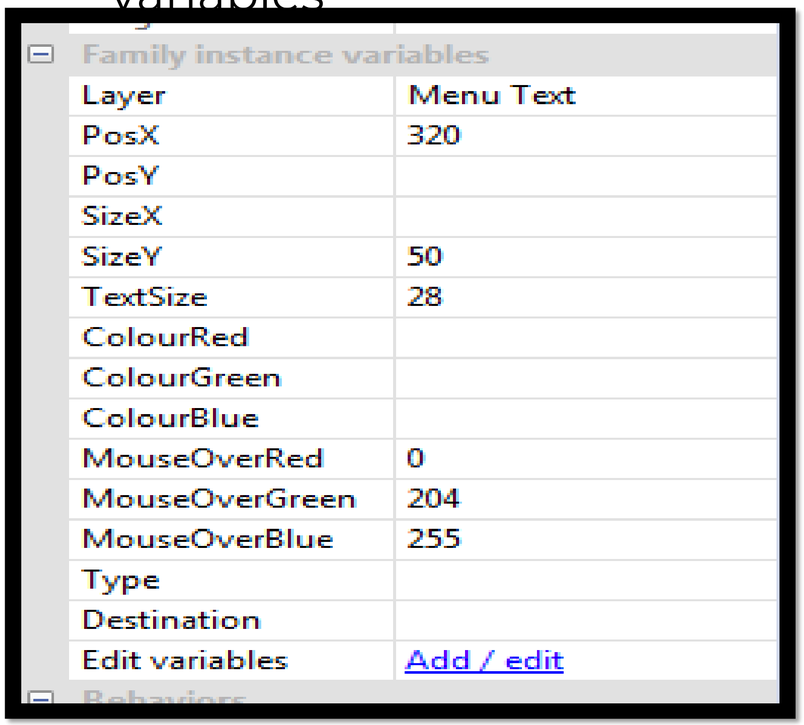
- Create Layers



- Create & add families



- Create & fill family variables



Let’s Practice - Homework of the day

Download and Install Construct -2

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Thank You!
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