Expansion Pack

For Game Creator 2

Documentation

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Overview

Included in this Asset are **over 80 new and exciting Instructions** for **Game Creator 2**. They include:

- **11 x Audio** (Audio source, Streaming, etc)
- **3 x Camera** (Mirror, Objects, Rotation)
- **6 x Environment** (Lighting, Skybox, etc)
- **16 x GameObject** (Drag, Spawn, etc)
- **7 x Lighting** (Settings, Flicker, Follow, Lookat)
- **2 x Logic** (Collider size, Repeating)
- **5 x Physics 3D** (RigidBody Attract and Repel)
- **8 x Random** (Instructions, Objects, Wait, etc)
- **6 x Renderer** (Highlighting Objects)
- **8 x Textmesh Pro 3D** (Settings, Rotate, Lookat, etc)
- **3 x Time** (Time Scale and Timers)
- **6 x Video** (Renderer, URL, and more)

This asset also includes **12 custom** Property Drawers for the above and **3 custom** Attributes. There are also **6 Detailed Example scenes** and **1 Audio Component.**

All instructions are fully supported, but are subject to change while **Game Creator 2** is in Beta.

The Models in the Graphics are **NOT** included in this asset.

Audio Instructions

Display Audio Source Time	Displays the current min/sec value of a playing Audio Source
Play Audio Source	Plays an Audio Source attached to a Game Object
Loop Audio Source	Sets an Audio Source to Loop equals true or false
Pause Audio Source	Pauses an Audio Source at the current play head
Stop Audio Source	Stops an Audio Source and resets to zero
Rewind and Play Audio Source	Rewinds and Plays an Audio Source
Stream Audio from Web	Plays an Audio Source from a https website
Play Random Music from Folder	Plays a Random Ambient sound from a Folder with Options
Play Random Music from List	Plays a Random Ambient sound from a List with Options
Play Random SFX from Folder	Plays a Random Sound Effects from a Folder with Options
Play Random SFX from List	Plays a Random Sound Effects from a List with Options

Camera Instructions

Add Camera to Object	Adds a Camera to an Object and a Display to another
Add Mirror Camera to Object	Adds a Camera to an Object and displays on the same
Rotate Fixed Camera Shot	Rotates the Fixed Camera Shot using a Trigger

Environment Instructions

Change Ambient Lighting	Sets the Ambient Lighting intensity of a scene
Change Reflection Intensity	Sets the Ambient Reflection intensity of a scene
Change Procedural Skybox	Changes a Procedural Skybox to another over time
Change Skybox	Changes a Non-Procedural Skybox to another
Change Skybox Exposure	Changes a Procedural Skybox exposure over time
Change Skybox Sun Size	Changes a Procedural Skybox Sun Size over time

Lights Instructions

Change Light Color	Changes a Light Color to another or Random Color over time
Change Light Intensity	Changes a Light Intensity over time
Change Light Range	Changes a Light Range over time
Change Spotlight Angle	Changes a Spot Light Angle over time
Change Spotlight Lookat	Changes a what a Spot Light looks at.
Flicker Light Intensity	Set a Spotlight to Flicker with options and duration setting
SpotLight Follow Object	Sets a Spotlight to follow a Game Object with duration setting

GameObject Instructions

Constant Rotate of an Object	Rotates a Gameobject consistently with axis options
Dont Destroy on Load	Keeps a Gameobject in the next Scene when it is loaded
Dont Destroy on Load List	Keeps a List of Gameobjects in the next Scene when it is loaded
Drag Object with Mouse	Drags a specific Object with the mouse on a specified axis
Drag Any Object with Mouse	Drags Any Gameobject with the mouse on a specified axis
Drag Object by Tag with Mouse	Drags Objects with specified Tag with the mouse
Float an Object	Floats a Gameobject consistently with time options
Shake an Object	Shakes a Gameobject consistently with time option
Get Parent of Object	Gets the Parent of an Object and stores in a Variable
Spawn Prefab at Position	Spawns a Prefab at runtime to a specified position
Spawn Prefab at Mouse	Spawns a Prefab at runtime to a Mouse click
Spawn Primitive at Position	Spawns a Primitive at runtime to a specified position
Spawn Primitive at Mouse	Spawns a Primitive at runtime to a Mouse click
Activate Game Objects by Tag	Sets all objects with specified Tag to Active
Inactivate Game Objects by Tag	Sets all objects with specified Tag to InActive
Destroy Game Objects by Tag	Destroys all Game Objects with specified Tag

Logic Instructions

Change Collider Size	Sets the size of a Collider over time
Execute Action Infinite Times	Executes an Action infinite times or specified times

Physics3D Instructions

Drag Object by RigidBody with Mouse	Drags a specific Object with a Rigidbody with mouse
Drag Any Object by RigidBody with Mouse	Drags any Object with a Rigidbody with the mouse
Attract RigidBody Object	Attracts a Rigidbody to a specified Object
Repel RigidBody Object	Repels a Rigidbody from a specified Object
Repel RigidBody Object by Tag	Repels all Rigidbody with Tag from a specified Object

Random Instructions

Execute Random Instruction	Executes 1 of 4 Instructions choosing at Random
Execute Random Instruction from List	Executes Instructions choosing at Random from List
Execute Random Instruction Only Once from List	Executes Instructions choosing at Random from List only Once
Set Active Random Object from List	Sets an Object Active choosing at Random from List
Set Active Random Object from List Only Once	Sets an Object Active choosing at Random from List only Once
Execute Action Random Times	Executes an Action/Instruction a Random amount of times
Random Wait Time in Minutes	Sets a random Wait time in Minutes with min/max slider
Random Wait Time in Seconds	Sets a random Wait time in Seconds with min/max slider

Renderer Instructions

Highlight an Object	Highlights a specific Object on Trigger
Highlight an Object Off	Turns Highlight Off on Trigger
Highlight an Object by Tag	Highlights Objects with Tag on Trigger
Highlight an Object Off by Tag	Turns Highlight Off for Object with Tag on Trigger
Highlight an Object on Mouseover	Highlights a specific Object on Mouseover
Highlight an Object by Tag on Mouseover	Highlights Objects with Tag on Mouseover

TextMesh3D Instructions

3D Textmesh Alignment	Sets the Alignment of a 3D Textmesh Object
3D Textmesh Color	Sets the Color of a 3D Textmesh Object
3D Textmesh Content	Sets the Content of a 3D Textmesh Object
3D Textmesh Font	Sets the Font of a 3D Textmesh Object
3D Textmesh Outline	Turns On the outline of a 3D Textmesh Object with Options
3D Textmesh Outline Off	Turns Off the outline of a 3D Textmesh Object
3D Textmesh Size	Changes the Size of a 3D Textmesh Container
3D Textmesh Rotate	Changes the Lookat parameter of a 3D Textmesh Container

Time Instructions

Bullet Time Scale	Slows down time for a specified period
Custom Timer in Minutes	Sets a timer and then executes Actions or Conditions
Custom Timer in Seconds	Sets a timer and then executes Actions or Conditions

Video Instructions

Add Video to Object	Adds a Local or Remote Video to a Game Object
Play Video on Object	Plays a Video on a Game Object
Pause Video on Object	Pauses a Video on a Game Object at the current play head
Rewind Video on Object	Rewinds and Plays a Video on a Game Object
Stop Video on Object	Stops a Video and resets to zero
Remove Video from Object	Removes a Video from a Game Object

Example Scenes

The examples included in this Asset demonstrate each of the functions within the 12 categories. While every Instruction has not been used, every function that the instructions cover has been shown within the 6 examples.

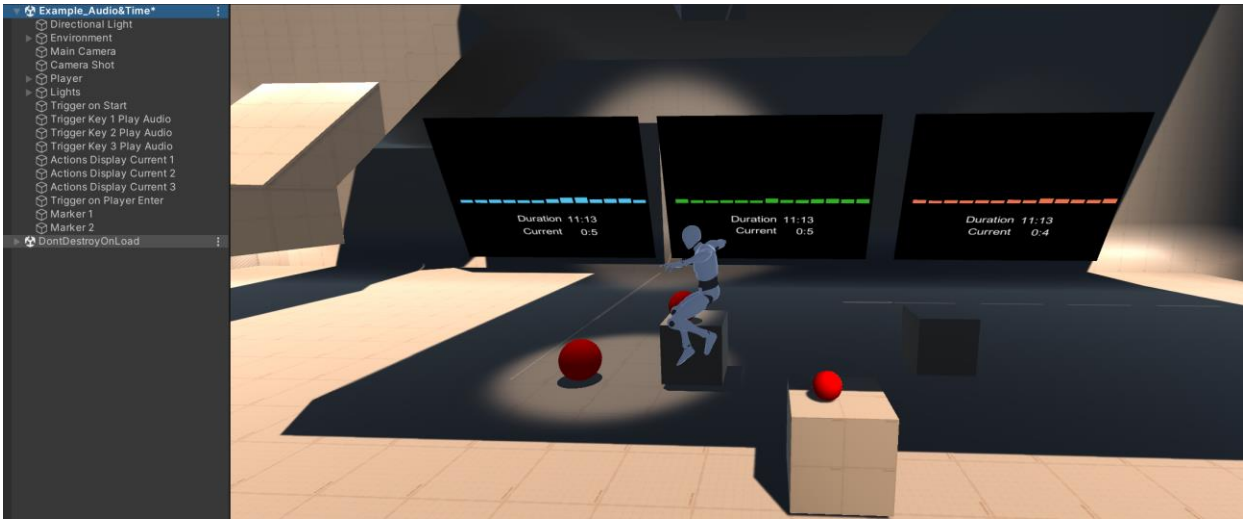
Some instructions have been used creatively and this is not the only way that they can been used. The reason for this is where in Game Creator 1 the core Actions were Mono Behaviors, and could utilize co-routines and Invokes. As Game Creator 2 does not work like this, many of the Instructions included in this Asset use a While loop, and hence do not finish while the Instruction is active.

However, further help and support can be found on the Pivec Labs support channels.

This documentation will detail how the Instructions have been executed using various Triggers.

Again, all instructions are fully supported, but are subject to change while **Game Creator 2** is in Beta.

Example – Audio & Time



The Audio and Time example displays the Audio Visualizer Component in three places on three different World Space Canvases attached to three different GameObjects. Each GameObject has an Audio Source attached.

Trigger (on Key down 1) plays the Audio source. This Instruction allows for a Volume to be set and for the total play time to be displayed if required.

This Trigger also calls the Action set, Actions Display Current 1. This Instruction, Display Audio Time, is in a separate Action to allow for it to be restarted every 1 second, and hance displays the current play head time of the audio clip.

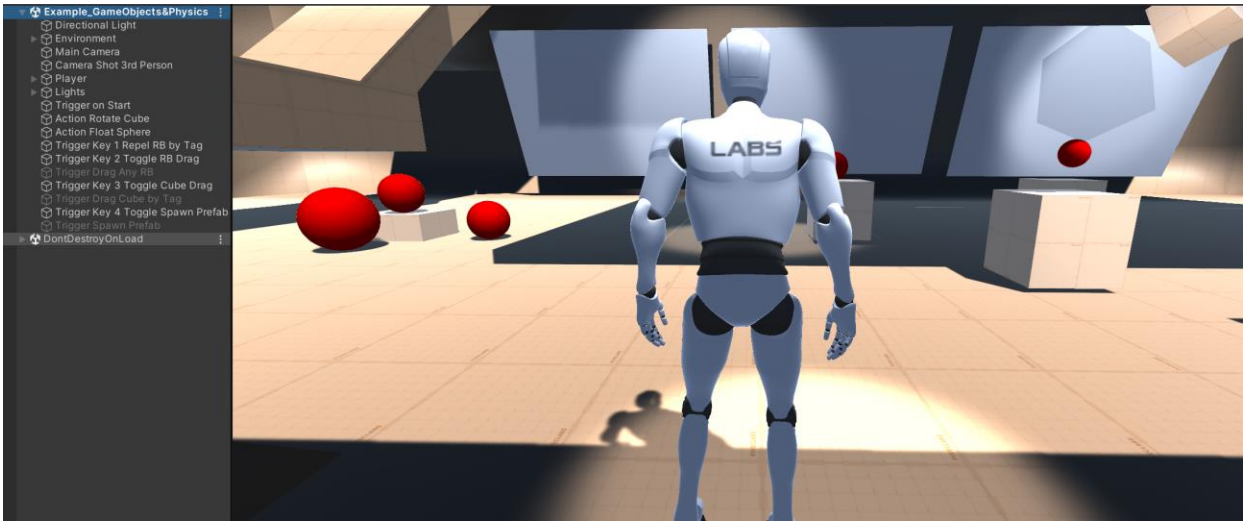
Triggers (on Key down 2 and 3) do the same for the other Game Object Canvases.

The On Start Trigger moves the Player Character to Marker 1 then to Marker 2, and then restarts. However, around the Cube in the middle, is a Sphere Collider with an on Player enter Trigger. This will Jump the Player over the Cube, and invoke Bullet Time for the player landing.

The Bullet Time Scale settings will need to be experimented with to provide the effect that you want.

All Triggers have been labeled accordingly in the Unity Hierarchy.

Example – GameObjects & Physics



In this scene we demonstrate the use of the Drag Instructions and interact with Rigidbodies. We also show how the Spawn Game Object is used.

The on Start Trigger calls two Action lists, Rotate Cube and Float Sphere. The Rotate Cube uses the Constant Rotate Instruction and should be in its own Action as it will never finish. Instructions after this will therefore never get called. As written earlier, this differs from Game Creator 1, where the core Actions were Mono Behaviors, and could utilize co-routines and Invokes. Game Creator 2 cannot do this.

Trigger (on Key down 1) calls the Repel Rigid Body by Tag, and will repel the three spheres around the Cube. The mode and force can be changed I the Instruction, and the Trigger can be executed multiple times.

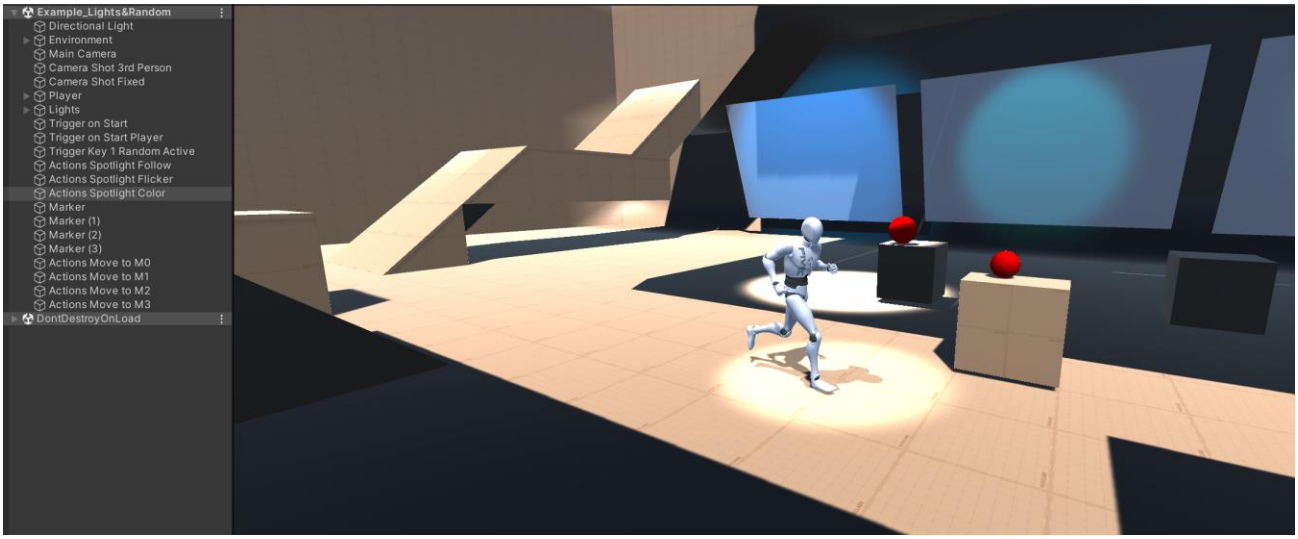
Triggers (on Key down 2, 3, and 4) toggle another 3 separate Triggers active and inactive. We have done it this way, as each of the other Triggers use the Mouse as input, and you may not always want to do the same thing with the same Mouse button. Hence activating and inactivating Triggers with a Toggle Trigger appears to be the simplest way to achieve this.

Trigger (on Key down 2) activates the Trigger Drag Any RB. This Trigger is set to Mouse While Pressing Left Button, to continuously drag any Rigidbody with a force amount of 10.

Trigger (on Key down 3) activates the Trigger Drag Cube by Tag. This Trigger is also set to Mouse While Pressing Left Button, to continuously drag any Game Object with the Tag of Cube. You can also set the axis to be dragged on.

Trigger (on Key down 4) activates the Trigger Spawn Prefab. This Trigger is set to Mouse Press Left Button which will spawn a Sphere Prefab at the Mouse position and optionally save to a Variable.

Example – Lights & Random



Here we have also used Triggers that call Action lists. This is for the same reason where in Game Creator 1 the core Actions were Mono Behaviors, and could utilize co-routines and Invokes. As Game Creator 2 does not work like this, many of the Instructions included in this Asset use a While loop, and hence do not finish while the Instruction is active.

This Example has 2 on Start Triggers. The first one calls the Spotlight Follow, Spotlight Ficker, and Spotlight Color Actions. The Spotlight Follow Instruction is set to Indefinite time and therefore will loop and follow the Player. The Spotlight Flicker Instruction is also set to Indefinite time and therefore will loop but the intensity and range can be set with min/max sliders.

The Spotlight Color Action has 3 instructions, one of each of the three spotlights. They each are set to random, with a separate duration. This Action list is then restarted.

The 2nd on Start Triger is for the Player movement. We have set the Player to not controllable and used the Random from List instruction to include 4 Actions with equal probability. Each of the 4 Actions will move the player to a specified Marker. This on Start Trigger will restart, after the Player has arrived at the appropriate Marker.

Example – TMP & Renderer

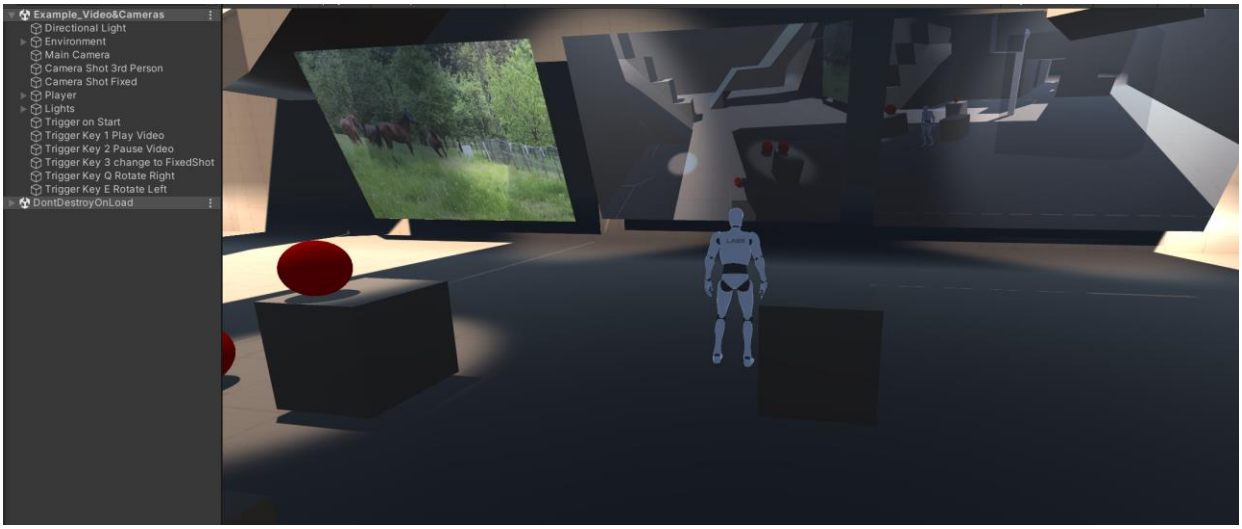
The on Start Trigger in this scene calls the Action Rotate TMP, which in turn rotates the 3D Texmesh to Look at the Player. This is then restarted allowing the text to follow the player movement.

Trigger (on Key down 1) will change the text to Blue, Trigger (on Key down 2) adds an outline to the Text and Trigger (on Key down 3) removes the outline.

Trigger (on Key down 4) highlights all objects with a Tag of Sphere and Trigger (on Key down 5) turns the highlight off.

Trigger (on Key down 6) and (on Key down 7), start and stop the Action List to Highlight on Mouseover. This includes the Instruction Highlight an Object on Mouseover by Tag (sphere in this case) and sets a width of 1 and color of green. Thios instruction will continuously redstart until the Action is stopped by on Key down 7.

Example – Video & Cameras



For our last example, we demonstrate the use of Cameras and Video on an Object. We have two Camera Shots (were called Camera Motors in GC1) defined, a 3rd person (was Adventure Camera) and a Fixed Camera. We start with the 3rd person and use the on Key down 3 to change to the Fixed. We have not defined a Trigger to switch back, but you can do this easily by either duplicating this one and reversing it, or if you are more adventurous, by creating a condition.

The on Start Trigger adds a Video, using a fully qualified URL, to the object Plane (2). You can also add aa local video, but not a YouTube, as this is not in a Unity supported Video format. This Trigger also adds a camera to the Capsule Object and displays the image on Plane (1). For Plane (3), we add the Mirror Camera. Note that you may need to experiment with the Direction field to get the camera and image to display correctly.

Trigger (on Key down 1) plays the video and (on Key down 2) pauses the video. You can also stop, rewind and remove the video if you choose.

Trigger (on Key down 3) switches to the Fixed camera Shot. Then with Triggers (while Pressing Key Q) and (while Pressing Key E), you can rotate the fixed camera accordingly. The speed of the rotate can also be set.

Both the Rotate fixed Camera and the Add Camera to an Object could be used creatively as security cameras in your scene.

Pivec Labs