Pause Controller
Interface and Usage Manual.

General usage strategy:

Thank you for looking into EleckTek's Pause Controller. We tried to create a solution that works around your architecture and creativity. The general idea behind use is to select as many objects as you can using board common attributes for pausing. After that filter is set, then use the other filters to allow particular objects to keep running (pause blocked).

For instance, you might have an menu interface object you want to keep running while the rest of you game is pause. Or maybe a coder on the team wants a easy way to pause particular objects when they enter a trigger area. All these can be easily achieve with Pause Controller.

Before we begin understanding the interface, let's become familiar with some common Inspector Fields. An Inspector Field is a feature, operation or setting that's available in the Inspector Tab for the selected GameObject.

Arrays:

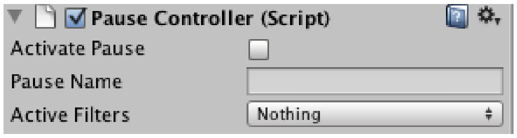
Arrays are a form of list that we use in the Inspector. Often Arrays come with two field. "Size" and "Element <X>". Let's run through these common patterns because the documentation will not cover these fields.

Size: represents the number of items in the listing. Remember to change that value to a number above Zero.
Element <X>: represents an each item in that listing.

Affecting Children Options:

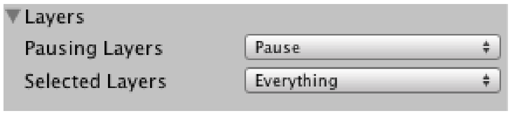
Some filtering schemes have options for affecting Children of GameObjects. This will include every child, no matter how deep the generations are.

Component Inspector Interface Breakdown:



☑ Pause Controller (Script)
Activate Pause □
Pause Name
Active Filters Nothing

Inspector Field	***Description***
Activate Pause	When this checkbox is check, pause is activated
Pause Name	This is meant for designer organization and does not affect any processes.
Active Filters	Contains a checklist of available filters.

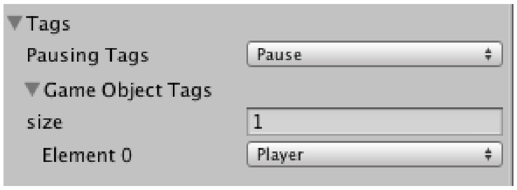


▼ Layers
Pausing Layers: Pause
Selected Layers: Everything

Layers Filters:

Layers matches Unity's Layering Attribute for GameObject to determine pausing behaviour.

Inspector Field	***Description***
Pausing Layers	The GameObject that's assign any of the selected layers will either "Pause" or be protected from pausing by using "DontPause".
Selected Layers	This contains a checklist of available layers that will inherit the behavior of "Pausing Layers". Note that if Everything is selected, then you can use another filter to manage pause blocking particular GameObjects or Behaviours.

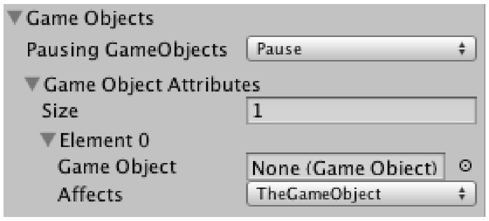


▼ Tags
Pausing Tags: Pause
▼ Game Object Tags
size: 1
Element 0: Player

Tags Filters:

Tags filter matches tags assigned to a GameObject to determine pausing behaviour

Inspector Field	***Description***
Pausing Tags	A GameObject that's assign any of these selected tags will either "Pause" or be protected from pausing by using "DontPause".
Game Object Tags: Element <X>	Each one of these elements lets you choose a particular tag you want to filter.



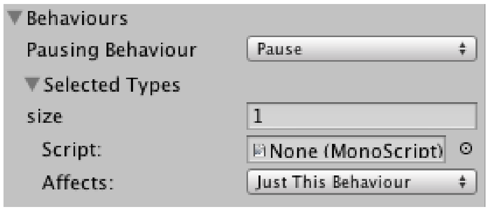
▼ Game Objects
Pausing GameObjects: Pause
▼ Game Object Attributes
Size: 1
▼ Element 0
Game Object: None (Game Object)
Affects: TheGameObject

GameObject Filters:

GameObject Filters matches GameObjects and determines pausing behaviours

Inspector Field	***Description***
Pausing GameObjects	A GameObject that's assign any of these selected tags will either "Pause" or be protected from pausing by using "DontPause".

Game Object Attributes: GameObject	One can either Drag the object to the field or click on the circle next to the field for a name listing of the object.
Game Object Attributes: Affects	There's 3 options available: "TheGameObject" pause settings will only affect the object in the field. "GameObjectAndChildren" pause settings will affect the select GameObject and any of it's children. "RootAndChildren" pause settings will keep the top-most parent and then affect all of it's children.



Behaviours

Pausing Behaviour: Pause

Selected Types

size: 1

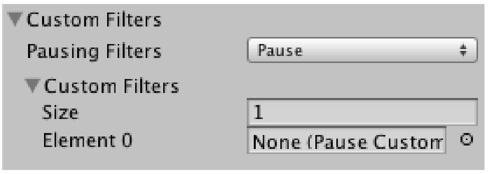
Script: None (MonoScript)

Affects: Just This Behaviour

Behaviour Filters:

This Filter will match components of a particular type and determine how to affect that behaviour and it's containing GameObject.

Inspector Field	***Description***
Pausing Behaviour	A GameObject that's assign any of these selected MonoScript will either "Pause" or be protected from pausing by using "DontPause".
Selected Types: Script:	These allows a MonoScript to be drag into the field or the circle can be click next to the field to invoke a listing of available behaviours.
Selected Types: Affects	There's 4 options available: "Just This Behaviour" will only allow the affects set in Pausing Behaviour to occur on these particular kinds of MonoBehaviours. "TheGameObject" will only affect GameObjects with these particular behaviour attached. "GameObjectAndChildren" will affect GameObject and Children. "RootAndChildren" will seek the top-most GameObject and then affect it and all of it's children.

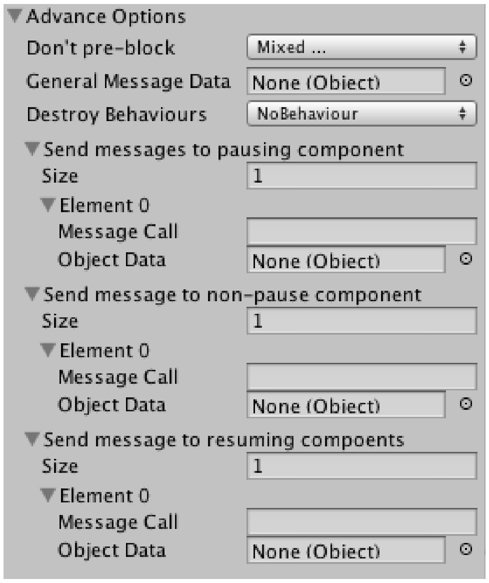


Custom Filters
Pausing Filters: Pause
Custom Filters
Size: 1
Element 0: None (Pause Custom

Custom Filters:

Custom Filter will look at the GameObject and/or Behaviour and determine behaviour on that GameObject.

Inspector Field	***Description***
Pausing Filters	This will register the desire behaviour for when the filter conditions are true.
Custom Filters	A coder should derive a class from "PauseCustomFilter". After that, drag that component onto a GameObject (preferably the same GameObject the Pause Controller is on). Then you can drag the Header of the Component that derived from PauseCustomFilter into the Element <X> field.



Advance Options
Don't pre-block: Mixed ...
General Message Data: None (Object)
Destroy Behaviours: NoBehaviour
Send messages to pausing component
Size: 1
Element 0
Message Call:
Object Data: None (Object)
Send message to non-pause component
Size: 1
Element 0
Message Call:
Object Data: None (Object)
Send message to resuming compoents
Size: 1
Element 0
Message Call:
Object Data: None (Object)

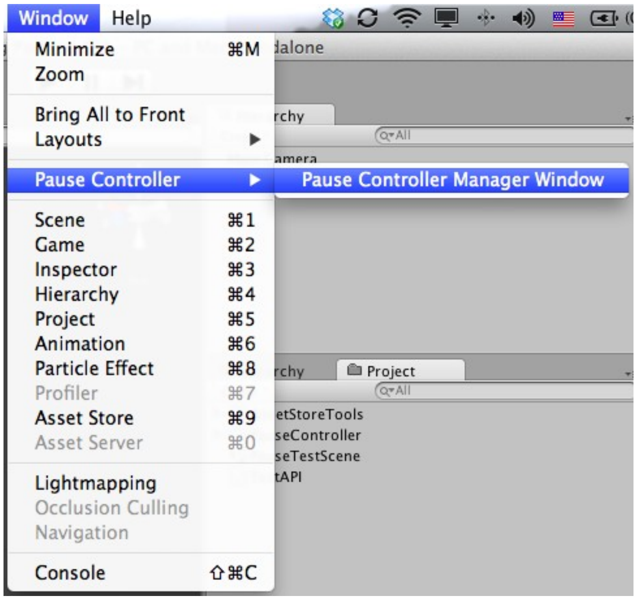
Advance Options:

Advance options handles more advance and code-oriented options.

Inspector Field	***Description***
Don't Pre-Block	This contains a checklist of Components that are said to be "pre-blocked." This means that these components are skipped during the pausing process. If an item is check, then it will go through the filtering process and can be paused.
General Message Data	This field allows for any Unity.Object to be store. This General Message Data will be sent during General Event Messaging Events. This is covered in the Pause Controller Programming Guide.

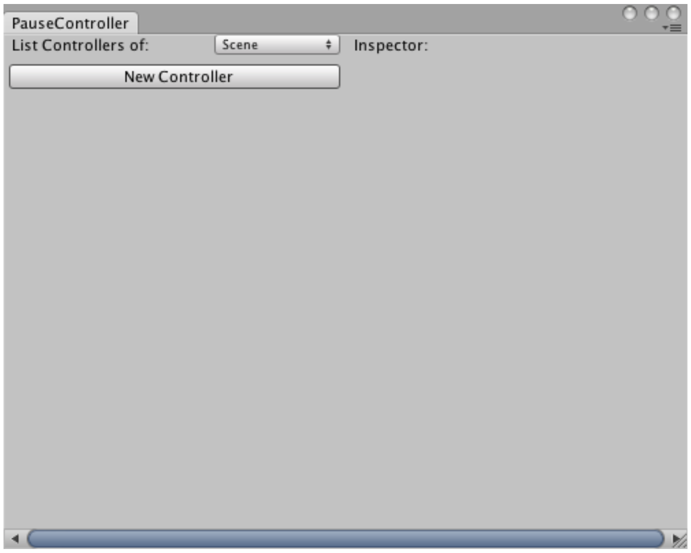
Destroy Behaviours	There's 4 options available. "NoBehaviour" specifies there isn't any unique destroy behaviour. "DontDestroyOnLoad" specifies this object will be transferred into the next scene. The next two options might seem a bit strange but they are meant to be a non-programmer way to Destroy a Pause Controller GameObject or Component after using DontDestroyOnLoad. "DestroyObjectOnNextScene" specifies that this GameObject will be deleted next scene. "DestroyComponentOnNextScene"specifies that this Pause Controller will be deleted next scene.
Send Messages to Pausing Component: Message	Enter the name of a Method to be invoked for a component that is on route to being paused.
Send Messages To Pausing Component: Object Data	Drag or Select an Object to pass to the method that is being invoked.
Send Messages To Non-pausing Component: Message	Enter the name of a Method to be invoked for a component that is on route to being pause blocked.
Send Messages To Non-pausing Component: Object Data	Drag or Select an Object to pass to the method that is being invoked.
Send Messages to Resuming Component: Message	Enter the name of a Method to be invoked for a component that was paused and is now being unpaused.
Send Messages to Resuming Component: Object Data	Drag or Select an Object to pass to the method that is being invoked.

Pause Controller Manager Window:



This window helps you keep track of PauseControllers in the scene. While many won't need this window, if you're working with a game where you have multiple PauseControllers and you need a way to inspect them all. This is a tool that'll let you do so. You can also add any of the inspector values from the Manager window by selecting on the of PauseControllers under the buttons on the left side.

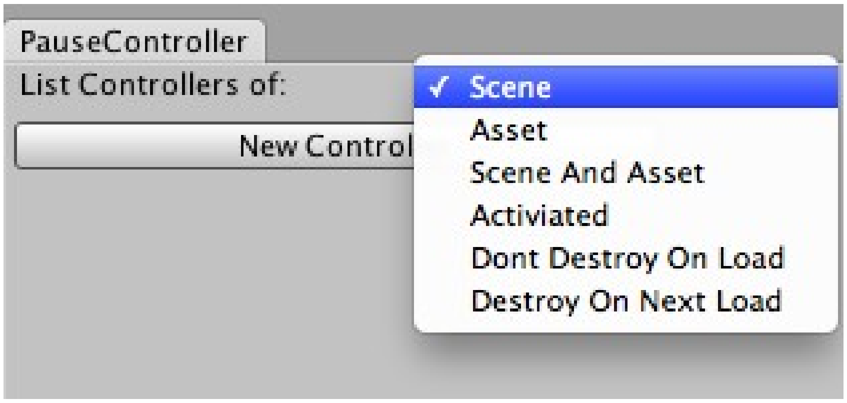
If you don't have any PauseControllers in the scene yet, you'll get a window that looks like this.



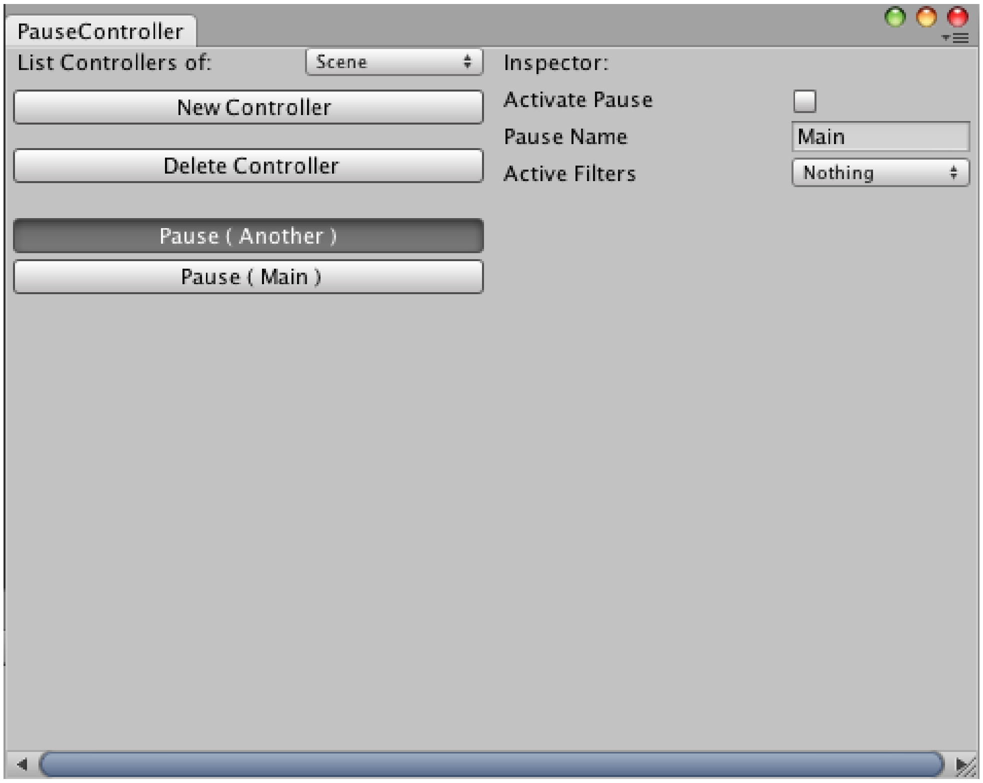
Go ahead and hit New Controller and the buttons will change to guide you through the process of creating a new PauseController within the Window Manager.

List Controllers:

This feature allows you to filter components by matching one of these attributes.



The List of Controllers:



List Controllers of: Scene

Activate Pause □

Pause Name Main

Active Filters Nothing

The buttons under the New Controller and Delete Controller represent PauseControllers under the current filter setting. Select one and you'll see the area to the right labeled "Inspector:" list all the inspector fields for PauseController.

Inspector Field	***Description***
List Controllers Of:	Options: Scene: This list all PauseControllers active in the scene. Asset: This list PauseControllers that are Assets(not the scene). Scene And Asset: This is a combonation of Scene and Asset filters. Activated: This only list the PauseControllers that are currently active. Dont Destroy On Load: This list any pause controller that has the Advance Option Field "Destroy Behavior" set to "DontDestroyOnLoad" Destroy On Next Load: This list any pause controller that has the Advance Option Field "Destroy Behavior" set to "Destroy On Next Load"
New Controller	This button will guide you through the process of creating a new PauseController in the scene.
Delete Controller	This button will guide you through the process of deleting the currently selected PauseController in the Manager Window.
Button Listing Under these options:	This buttons represent each instance of a PauseController under the current filter.