A GUIDE TO USING PARENT & CHILD IN CLICKTEAM FUSION 2.5

INTRODUCTION

Clickteam Fusion 2.5 enables you to create multiple objects at any given time and allow Fusion to auto-link them as parent and child objects. This means once created, you can give a parent or child directions to follow from one another and it will auto-magically know which parent or child object to follow regardless of how many instances.

Welcome to another guide for Clickteam Fusion 2.5! Some of the information in this guide maybe applicable for Multimedia Fusion 2.0 also. As with all tutorials and guides written in PDF, feel free to display it as a PDF or print to paper. You can study and learn these practices at your own pace, in your own time.

Due to Fusion 2.5's flexible nature of allowing users to accomplish the same result in multiple ways, sometimes there are alternative ways to perform certain routines or functions. These guide(s) will explicitly target the most common, easiest and most effective route.

These hand-written guides are here to help you target or perform a particular routine in Fusion 2.5 enabling you to harness the full potential of what Clickteam Fusion 2.5 can actually do for you as a developer. Whether it's game design or application development you want to do with Fusion 2.5, these guides will hopefully guide you from top to bottom in whatever you're looking to achieve.

This guide has been thoroughly checked before deployment. As always, feedback, comments and suggestions are always welcome on the detail, structure and formatting of these guides. Rather than create individual guides for different learning levels, we hope to be able to reach to all entry level, intermediate and advanced users within the same guide on achieving the same goal.

For more information on how you can download and purchase Clickteam Fusion 2.5, check out the website http://www.Clickteam.com

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1. AN INTRODUCTION TO PARENT-CHILD OBJECTS

Clickteam Fusion 2.5 allows you to create 'couples' of objects. Whenever two objects are created together in the same event, they are automatically 'paired' in the engine as parent and child. This enables you to reference either/or at any given point after creation and Fusion will automatically know which parent or child to look to.

This is hand if you have say, a lot of enemies on the screen that have health bars. You will need to position the health bar (child) always relative to the enemy (parent).

We will cover this in our guide below and have you on your way to magically linking parent and child objects making your game/app development even quicker and easier.

You may use your own graphics for this guide or use the library graphics provided with Clickteam Fusion 2.5... If you do not have these libraries installed, you can obtain them from http://www.clickteam.com in the 'Resources' menu.
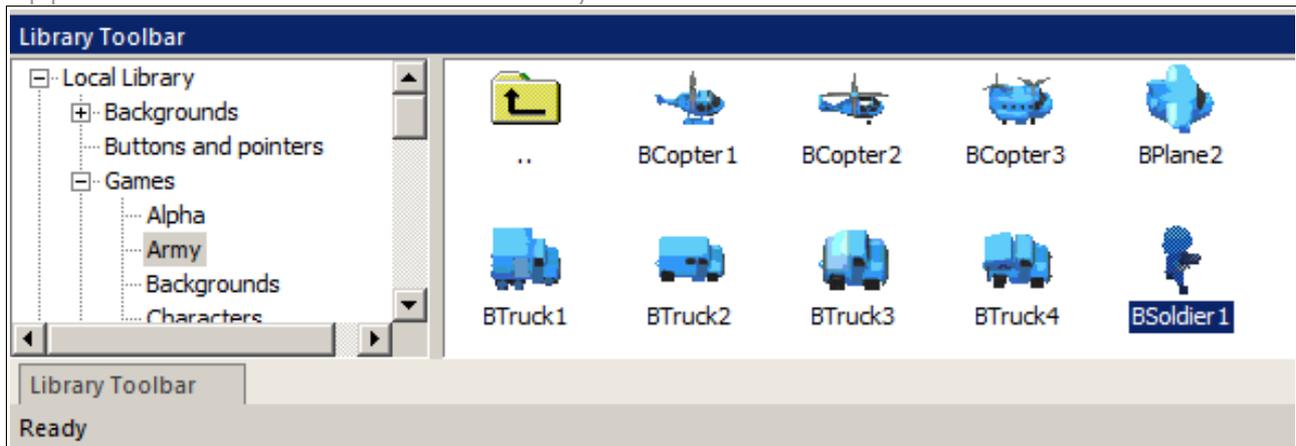
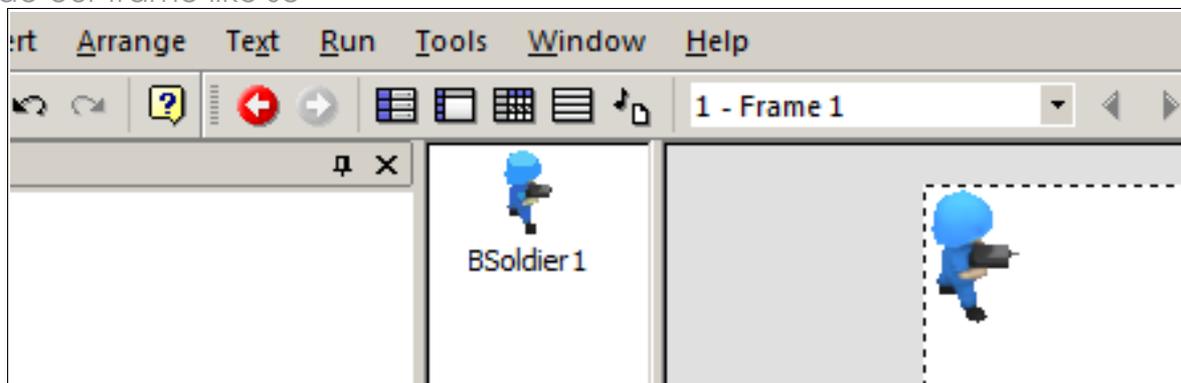For more information, tutorials, examples and walk-thrus visit the website.

2. SETTING UP YOUR PLAYAREA

First off, we need to setup our playarea. So go ahead and create a new application. Head down to the library window

Locate the 'Bsoldier 1' object inside Local Library > Games > Army.

Drag the 'Bsoldier 1' anywhere onto the playarea. You should now see the soldier inside our frame like so


Now, click on the Bsoldier 1 as we have to change some properties of this object. First of all, we need to uncheck 'Create At Start' as with Parent-Child objects, we need to manually create them via the event editor.

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2. SETTING UP YOUR PLAYAREA
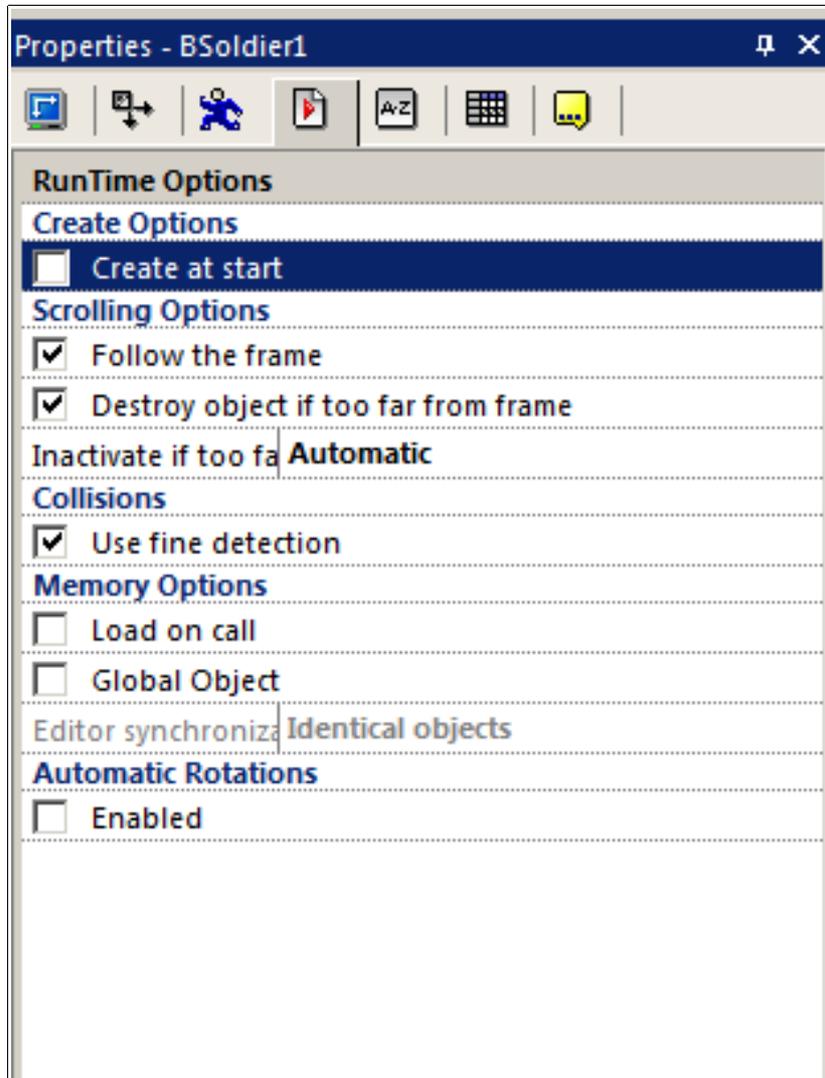
Once this is done, click on the File Menu (**Insert > Insert New Object**) and let's insert a counter object. Once you have inserted a counter object, you need to also uncheck 'Create At Start' for the properties of the counter object too.

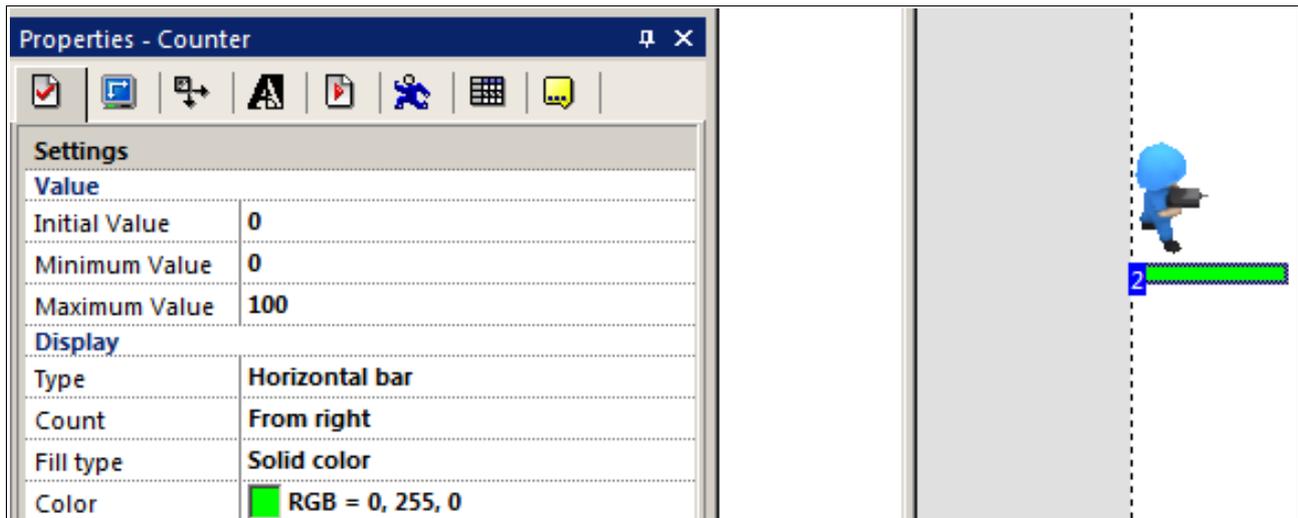Now, change the TYPE of the counter object to Horizontal Bar, Click on the Color tab and select Green.

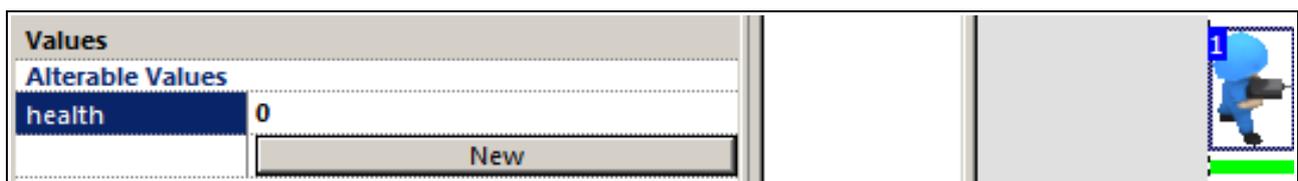For more information, tutorials, examples and walk-thrus visit the website.

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2. SETTING UP YOUR PLAYAREA

Like so...

Now, we have our playarea setup. Just one more thing to do. We need to give our Bsoldier1 object a new alterable value. This is going to be the 'health' value of the enemy. Click on the Bsoldier1 object, in its properties click on the Alterable Value tab and click 'New' under Alterable Values, when it inserts Alterable Value A, double-click on the label 'Alterable Value A' and rename it to 'health'.
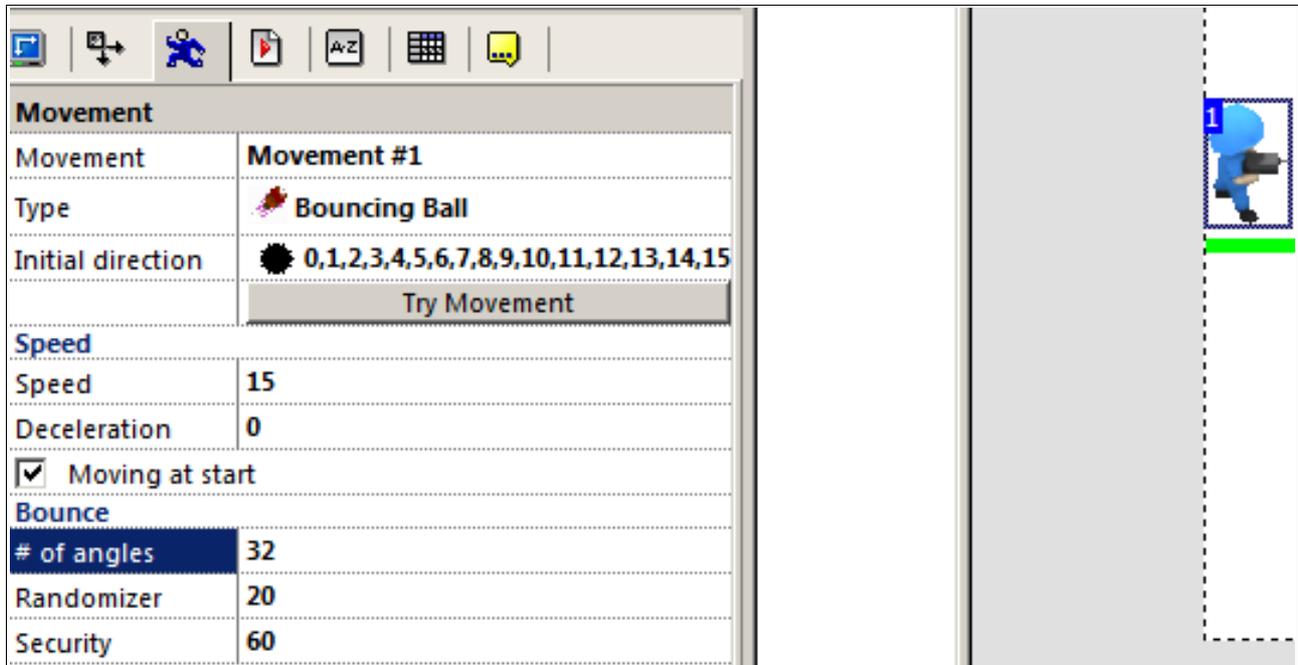

Let's also give our enemy some movement, we will assign the Bouncing Ball Movement with a speed of 15.

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2. SETTING UP YOUR PLAYAREA

This is our playarea now setup. We have our enemy character, our health bar and the correct properties and values setup. So if you run your application now, you will see absolutely nothing happens, not even a single enemy on the screen. This is where we now jump into the Event Editor and make the magic happen.

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3. EVENT IMPLEMENTATION

Once you are in the event editor, we need to create some simple events. Let's imagine when we press Spacebar, we create an enemy and position him randomly on the screen. At the same time, we will create the enemy his own unique health bar which will stay with him where-ever he goes.

So let's first of all, create a condition "**User presses Space bar**" create a Bsoldier1 and then give him a random starting position in the frame.
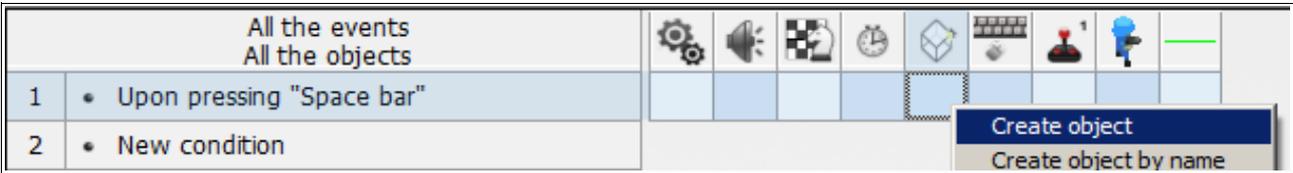
Click on the Bsoldier1 in the Create Object dialog and select 0,0 position on Layer 1.
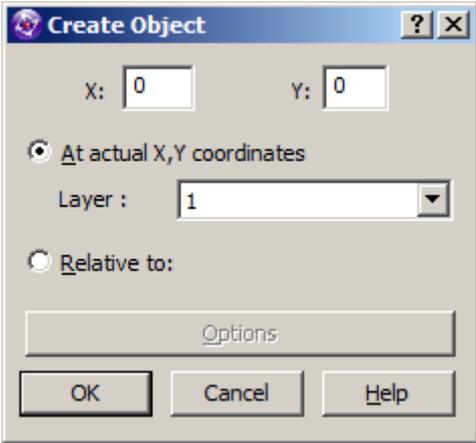
Click OK. Now, in the same event, hover back to the Create Object and right-click to create a counter object. Do the same above method with the counter object.
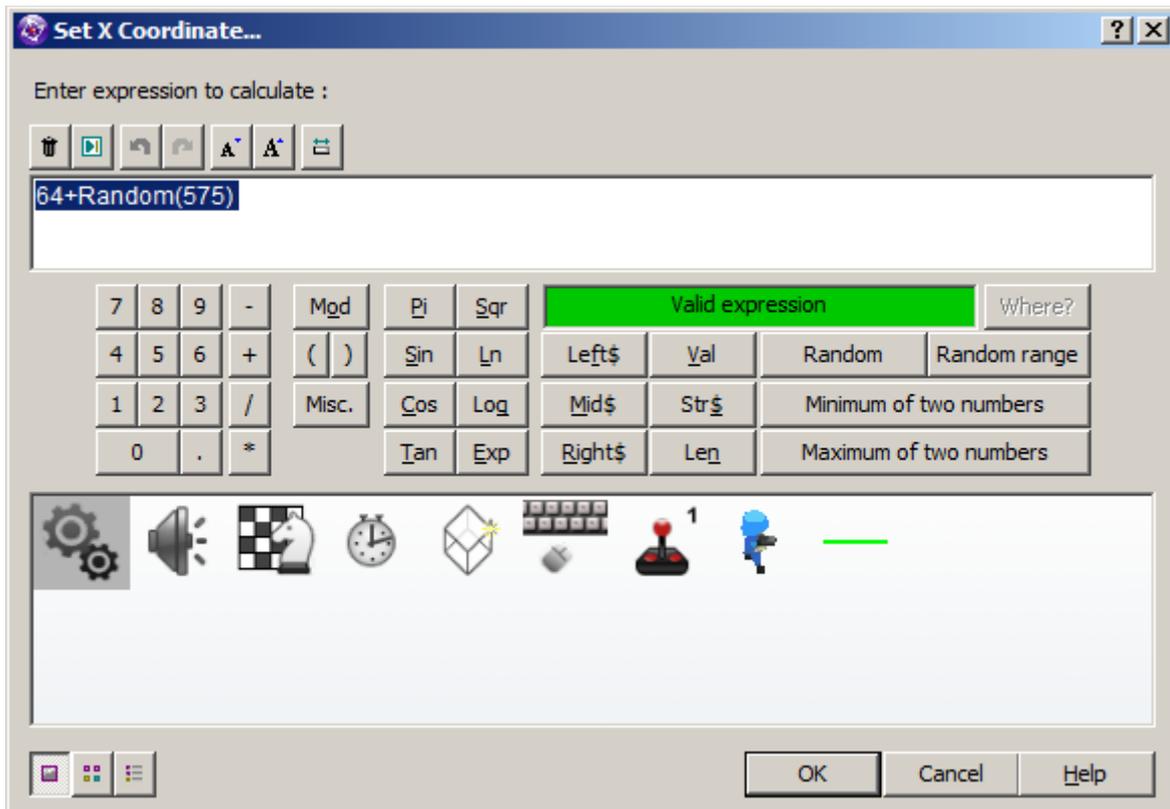
Once you have done that, in the same event, hover over to the Bsoldier1 slot and right-click (**Position > Set X Co-ordinate**) and put in "64+Random(575)"

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3. EVENT IMPLEMENTATION
Like so...

Once you have clicked OK, do the same again for the Y co-ordinate. Hover over to the Bsoldier1 and right-click (Position > Set Y Co-ordinate) and set it to **64+ (Random(400)**.

We need to stipulate 64 for both X/Y as we want it created INSIDE the frame area, we do not want the enemy to leave the frame area so we set a minimum boundary and that's 64 in this instance.
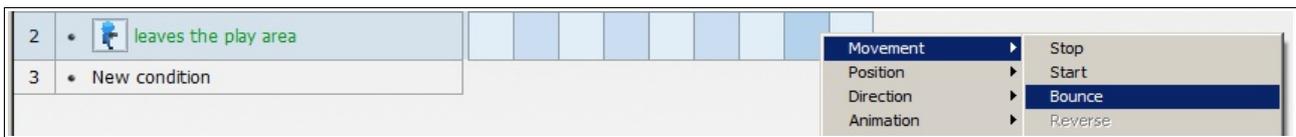
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3. EVENT IMPLEMENTATION

So now we have the foundation in, let's add upon it. Fusion will create an enemy object, a health bar and give the Bsoldier1 object a random starting position. So now let's setup some boundaries, if the Bsoldier1 object leaves the playarea, bounce to keep it in.


This will stop our enemies from leaving the playarea.

Hit F8 and test run the application.

You can see, you can now spawn a new enemy by pressing space and he is given a random starting position in the playarea, but the health bar isn't visible and it's not around.

This is where Clickteam Fusion and auto-pairing comes into play. Let's create a new event.

Create a new condition, under the Special Object, select Always. Then hover across to the Counter Object, right-click and select **Position > Select Position...**
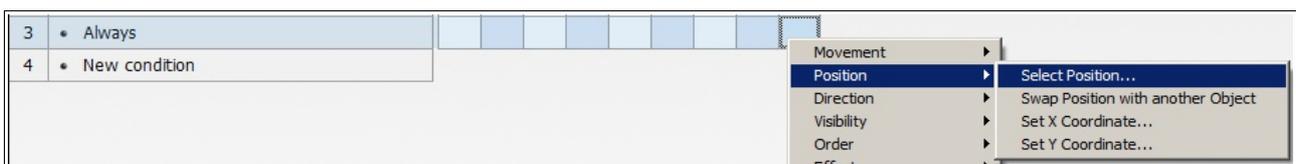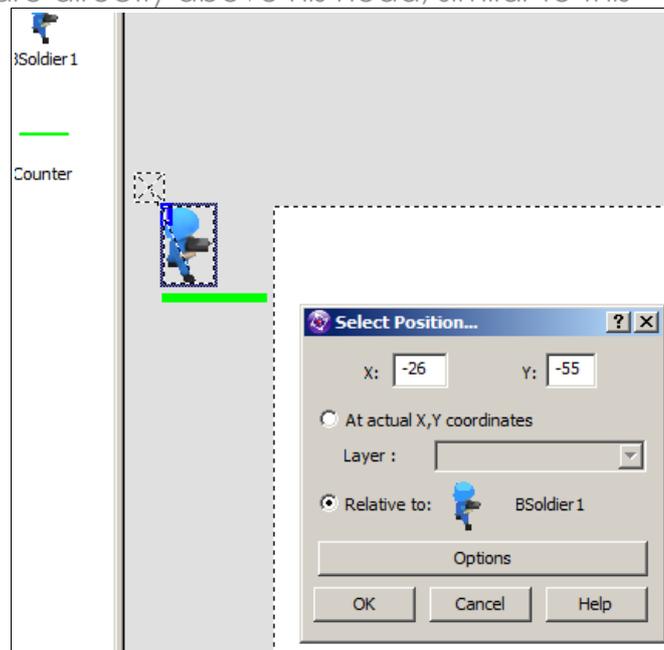
In the next screen, you will see the playarea. Click ON the Bsoldier1 object and then move the square directly above his head, similar to this

So you are telling Fusion to ALWAYS set the Counter position to the current position of the Bsoldier1 but -26 and -55 respectively, of the current position. Click OK.

Now in the same event, hover back over the Counter object, right-click and select **Set Counter**. The expression editor will popup asking you what to set the counter as, we want the counter to represent the health of the Bsoldier1 so right-click on the Bsoldier1 and select (**Values > Values A to M > Retrieve Health**)
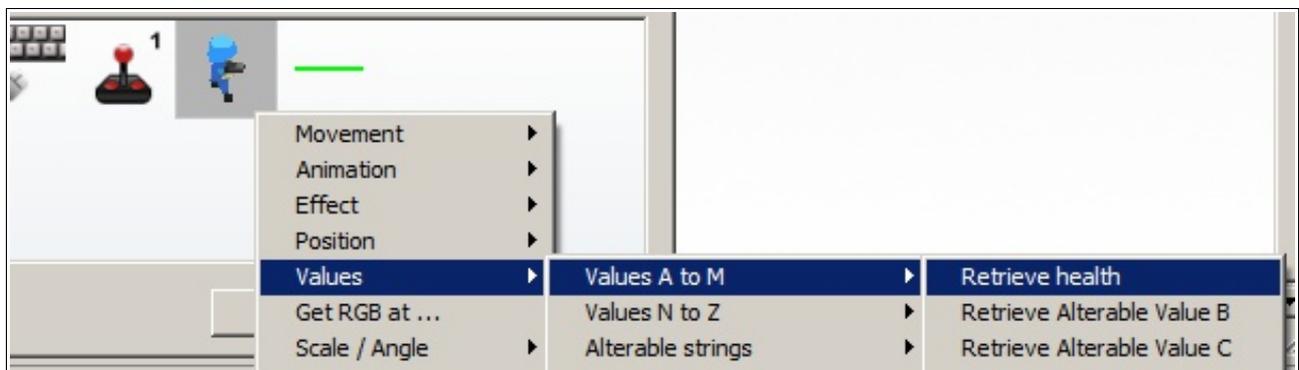
Click ok to close the expression editor.

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3. EVENT IMPLEMENTATION

Now, when we created our Bsoldier1 enemy, we never assigned it any starting health. So it's current health is set to 0. We need to jump back to our event where we created the enemy object and right-click under the Bsoldier1 and select
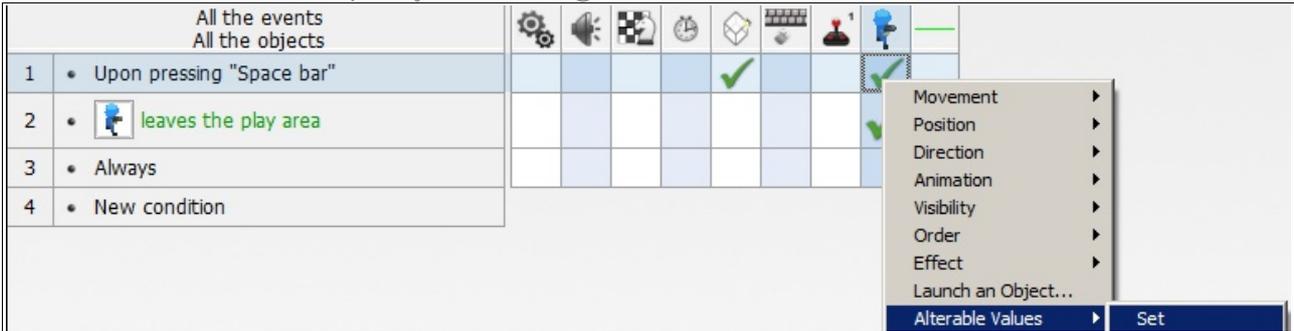

Alterable Values > Set. In the expression editor just type 100 and click Okay.

So in the event where we press spacebar (*as seen above*) it will now create the Bsoldier1, Create the Health Bar, It will set Bsoldier1's starting health to 100.

In event 3 (*above*) it will now ALWAYS set the counter to the position above the Bsoldier1 and set the health bar value to the current health value of the player.

We just need a way to inflict some damage on the enemy now so we can see our system working fully. Create a new event with the condition 'User Clicks on an Object'
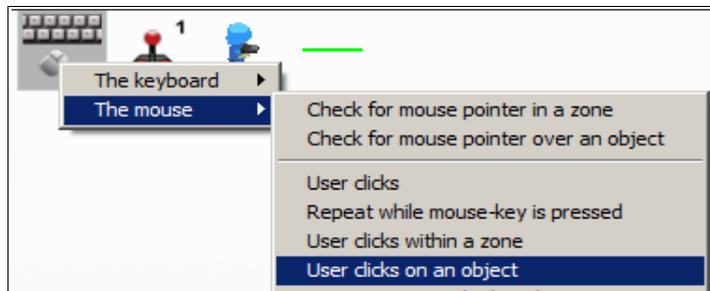
Once you are prompted with the Select Object dialog, click on the Bsoldier1.

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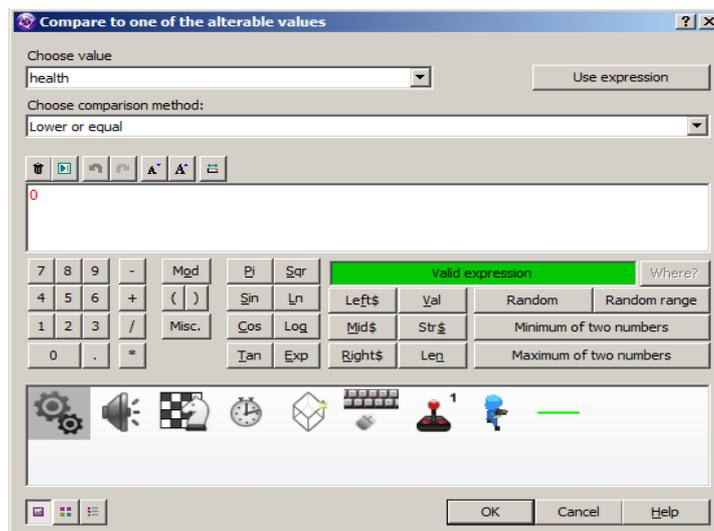
3. EVENT IMPLEMENTATION

Once the new event is created, hover over to the Bsoldier1 object, right-click and select (**Alterable Values > Subtract from**)

When prompted with the expression editor, just type in 10. Click OK.

So now when we click on any enemy soldier with our mouse, it will take 10 health away from it's value.

Now we just need one final event and that is to detect when the enemy's health is 0, we need to destroy it. So let's do that now. Create a new event with the condition Compare to Alterable Value. You can do this by clicking 'new condition', right-clicking on the Bsoldier1, going to **Alterable Values > Compare to one of the Alterable Values**. When prompted with the expression editor select Lower or Equal and type 0

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3. EVENT IMPLEMENTATION

Click OK. Now, hover over to the Bsoldier1 object, right-click and select **Destroy**.

Hit F8, run the application. Press Spacebar to create a new enemy in a random position, see his health bar constantly above his head and click on him to deplete his health. Once his health hits 0 or below, he will be destroyed.

4. CONCLUSION

In this guide we have seen how Fusion links together or 'pairs' together objects in a parent-child like fashion. So long as you create BOTH objects in the same event, it will auto-pair it up, meaning any future events, conditions or expressions where you need it to auto-work with the correct one it will.

If you don't create both objects in the same event, Fusion will not auto-pair them and you would have to do that manually.

This is a very effective and time-saving method especially in game development where you need parent-child objects.

Very useful feature to learn and use in your future projects.

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