5.0 Events and Actions

So far, we've defined the objects that we will be using and allocated movement to particular objects. But we still need to know some more information before we can create an actual game. The Level Editor is very effective for simple design work, but it takes no account of the action in the game. The next stage is to be able to add particular actions into our games whenever an event may occur.

Typical events might include a spaceship colliding with an attacker, the player pressing fire, or a character walking into a wall. In each case, we need to decide how the game should handle these events.

Possible actions might be to destroy the ship, fire off a missile, or bounce a character against the wall.

Klik & Play let's you define these events in two ways:

The Step Through Editor

This is an interactive "assistant" which tests your games and reports back whenever an event occurs. A message is displayed whenever objects collide, or leave the playing area. You're then given the opportunity to assign actions to your events. This might be something simple, such as playing a sound sample, or it might be a whole series of different effects, to destroy an alien, increase the player's score, and remove a missile. Either way, you'll find it easy to add these events on the screen. This is explained in the next chapter (5.1).

Although the Step Through Editor is extremely friendly, it doesn't provide all the power you need to make complex games. It's only capable of handling a fraction of the available events. If you want to be able to use the full capabilities of Klik & Play, you'll need to use the Event Editor as well.

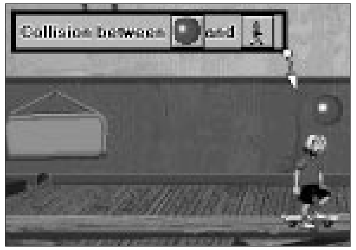
The Event Editor

The Event Editor gives you total control over all the events and actions in your games. It lets you define events directly in your game, and select the actions by hand. You can use it to turn off certain actions during testing, flip an object to a new position, change an animation sequence, and so on. The possibilities are almost limitless. Because of this, it's sensible to familiarise yourself with the general principles first. Otherwise, you could easily get lost in a maze of possible actions. We'd therefore recommended you to read through this chapter carefully before you start. You'll find a complete explanation in Chapter 5.2.

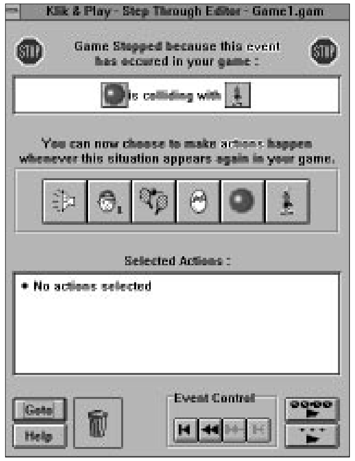
5.1 The Step Through Editor

The Step Through Editor tests your game, and checks it for events. When an event occurs, your game will stop playing and you will be asked to enter an appropriate action.

The event is displayed in a small box on the screen like this:



After a few seconds, this disappears and the Game Control Panel springs into view.



Klik & Play - Step Through Editor - Game1.gam

Game Stopped because this event has occured in your game :

is colliding with

You can now choose to make actions happen whenever this situation appears again in your game.

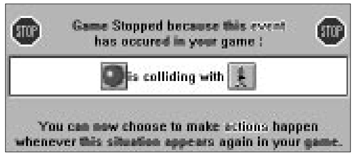
Selected Actions :

- No actions selected

The Game Control Panel is divided up into several Sections.

The Event message

Describes the event and asks you to select an action if you wish to do so.



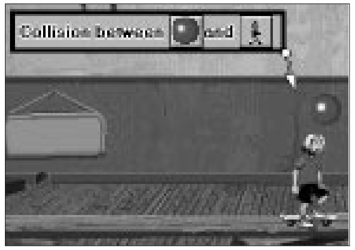
Game Stopped because this event has occured in your game :

is colliding with

You can now choose to make actions happen whenever this situation appears again in your game.

The Action Icons

Chooses a new action for your game. There are five possibilities:



Play a Sound Sample
Plays a sound sample.

Change Player's Score or Lives
Adjusts the player's score or the number of lives.

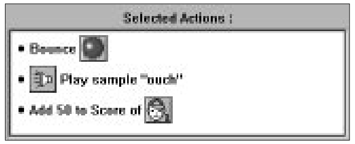
Game Storyboard Controls
Jumps to a new level or stops the game.

Create New Object
Creates a brand new object into the game.

Change Object "name"
Allows you to change the direction of an object, how it collides with other objects, if it should be destroyed and if it should shoot other objects.

The Selected Actions box:

Displays all the actions which have been defined for this event. These actions can be dragged around with the left mouse button and deleted by dragging them over the dustbin.

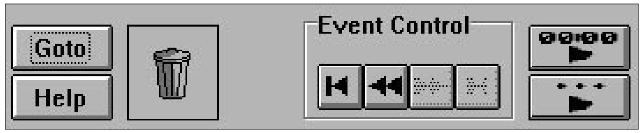


Selected Actions :

- Bounce
- Play sample "ouch"
- Add 50 to Score of

Event Controls

These allow you to move through any previously set-up events and add new actions quickly.



Display First Event
Jumps to the first event in your game.

Display Previous Event
Moves to the most recent event that was set-up.

Display Next Event
Jumps to the next event in the list.

Display Last Event
Moves to the last event detected in your game.

Restart Game
Plays your level from the start.

Continue Game
Continues the game from the current position.

Goto Allows you to access the Storyboard Editor, Level Editor and Event Editor. The Goto option also allows you to move to another level.

Help Provides a detailed help screen explaining the various options.

Dustbin Drag an action over this area to erase it completely.

Calling the Step Through Editor

The Step Through Editor can be entered from either the "Game" menu, a pop-up menu from the Storyboard editor, or via one of the "Goto" icons. In each case, it can only be called up if you've already defined some objects for your level. It will not be accessible with empty levels.

Step Through Editor Tutorial

Getting started
We'll now demonstration the Step Through Editor in action. As our example, we'll expand the demonstration game we created in Chapter 1.1.

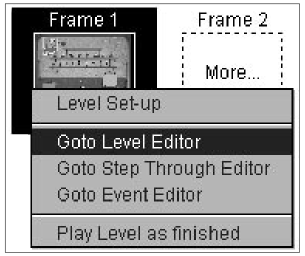
If you haven't already read Chapter 1.1 it is very advisable to do so, as it will give you an invaluable grounding in the basic principles of Klik & Play. Follow the instructions given in Chapter 1.0 and create the demonstration game on the screen. When you've finished, save the results, and return to this tutorial.

Setting the scene

Before we can start, we will need to add a couple of extra objects to our game.

First, load up your demonstration game from Chapter 1.1 with the "Load game" option from the "File" menu.

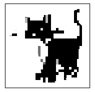
Call up the Level Editor by selecting the "Frame 1" box with the right mouse button, and highlighting "Goto Level Editor" from the resulting menu.



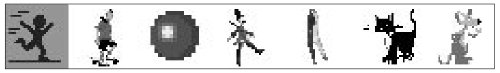
After a few seconds the Level Editor will appear.

We can now select our objects from the screen.

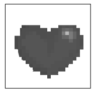
Click on the "Toyland" icon from the Library list. You may need to move through the icons with the scroll bar before it appears.



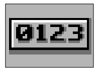
The "Toyland" Library will be displayed on the Object Shelf.



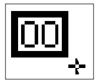
Highlight the "Heart and Soul" object, and place it at the top of the screen. We'll be using this object as a bonus.



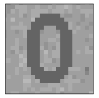
Let's create a "score" object to keep track of the player's progress. Click on the "Tools" button, and choose the following icon:



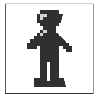
When it's selected, the mouse will change to an insertion pointer:



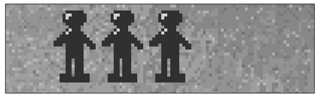
You can now position your object by moving the mouse over the right of the player and pressing the left button. The score will be shown as a red "0".



Next, we'll add a "lives" object to show the player's status. Call up the "Tools" button again, and click on the "Lives" icon.



As before, the mouse will change shape to show that you're in insertion mode. It will turn into a small man, representing the lives. Position it at the top right hand corner of the playfield, and click once to drop the lives object into place. The result should look something like this:



Testing a game with the Step Though Editor

You're now ready to test the new objects in your game. Move the mouse over the "Game" menu, and select "Goto Step Through Editor".

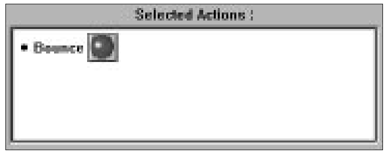
Your game will be run on the screen, with Klik & Play searching for possible events. Whenever an event occurs the game will stop and you'll be asked to choose an appropriate action.

If you've set up the demonstration game correctly, you should have already covered all the possible rebound events. So the ball will bounce around the screen destroying soldiers and spinning tops. You can now move directly to the next section and add in the new actions.

If you haven't, the Step Through Editor will detect a whole series of different events. Here's a list of the possibilities, along with the suggested actions:

Collisions between the ball and either the Playfield Boundaries or the Skateboarder

Click on the "Big Ball" icon from the Step Through Editor screen, and choose the Bounce "Big Ball" option.



Selected Actions :

- Bounce

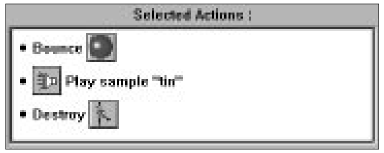
Now select the "Continue game" icon to resume.

Collisions between the Ball and either a "Spinning Top" or a "Soldier"

Click on "Big Ball" icon and select the Bounce "Big Ball" option as before.

Select the "Loudspeaker" icon, and click on the "Toyland" directory, from the list of samples choose the "Tin.wav" sample.

Click on the object the ball is colliding with and pick the "Destroy..." option.



Selected Actions :

- Bounce
- Play sample "tin"
- Destroy

Press "Continue Game" icon to resume the game.

Collisions between the Skateboarder and the Playfield Boundary

Select the skateboarder and choose Bounce "Skate Dude"

If you're still having problems you'll find a full tutorial in Chapter 1.1.

Once you've set up the basic collisions you'll be ready to add in new objects.

Hit the "Esc" key to get back to the Step Through Editor.

You can test your new actions by selecting the "Restart Game" icon.

Now for the fun part. The skateboarder object has its own pre-set movement system. It's assigned to the player and can be moved around with the Cursor arrows or Joystick.

With the help of the skateboarder, try to bounce the ball so that it hits the heart. When you've succeeded the Step Through Editor will ask you to define an action.

The action we want, is to add a new life to Player 1.

Click on "Change Player 1's Score or Lives" icon:

and select "Add a life". This will give the player an extra life whenever the ball hits the heart.

Next, we'll destroy the heart when the ball hits it. Click on the "Heart" icon and choose "Destroy Heart and Soul".

Select the "Continue game" option as before.

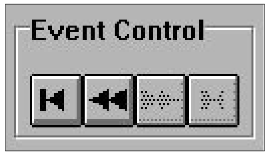
A moment later, the Step Through Editor will reappear. That's because you've just killed off the last heart in the game. You could just leave things as they are, but if you're feeling generous, select the "Player 1" icon, and choose "Add to Score". This will allow you to add a bonus in your game. Either way, click on the "Continue game" icon to keep playing.

Stepping through the events

So far, we've followed Klik & Play's instructions very specifically. So we'll now do a bit of additional editing work for ourselves.

Play the game again, making sure you destroy a few Spinning Tops and Soldiers. Then hit the "Esc" key to return to the Step Through Editor.

Near the bottom of screen, you'll see some icons labelled "Event Controls". These allow you to examine each event in your game, and make changes very quickly.

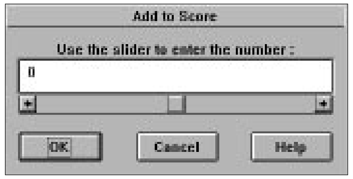


This loads the editor with the first event in the current game. Click on it with the mouse to see the effect.

The arrow icons let you scroll back and forth through the events list:
Have a go at selecting them to display all the events in the current game.

When you find one labelled, "Ball is colliding with Spinning Top", click on the "Player 1" icon, and select "Change Score". Now click on "Add to Score" to increase the player's score whenever he hits the top.

You should get a dialogue box like this:



Add to Score

Use the slider to enter the number :

0

Move the mouse over the "0" and click on it with the left button. Type in 50, and select "OK".

The Step Through Editor will reappear, along with some new scroll bars. You can use these bars to see all the actions chosen for a particular event.

Check through the controls again, and search for the "Ball collides with "Soldier" event. You can now add in the score action as before, and start the game with the "Restart Game" icon.

Have a play with the game. Whenever the ball hits a soldier or top, the score will increase by 50 points.

And that's about it. You've just edited your first Klik & Play demonstration game!

All that's remaining, is to return to the Level Editor and save it on the disk.

Hit "Esc" and select the "Goto" icon. Call "Goto Level Editor" and save your demonstration game using the "Save" option from the File menu. Choose a name like "Demo2.gam"

So far we have a nice looking demonstration game, but it is a rather limited game. We have a situation where the player does not lose lives. The next step is to include the events which affect the player's lives.

The Step Through Editor isn't the best tool for this option as it only lets you test for a limited number of conditions. If you want to access the full power of the Klik & Play event system, you'll need to use the Event Editor instead.

In Chapter 5.2 we'll be demonstrating how we can use the Event Editor to add the finishing touches to our game.

The next chapter has a detailed explanation of how the Event Editor works.

5.2 The Event Editor

Overview

The Event Editor provides you with a simple way of managing all the events and actions which can occur in your games. It's the key to creating successful games.

Everything that can happen in your game, is represented by an EVENT. Typical events would be an object moving outside the playing area, a player pressing the fire button on a joystick, or a ball hitting a bat. Each event can include a number of different conditions. These are basically just tests. You can test the position of an object, read the player's score, check the mouse coordinates, the possibilities are endless.

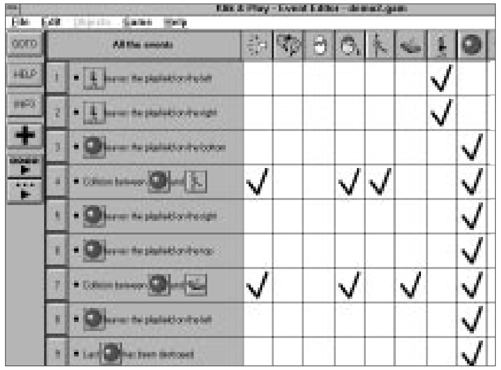
When an event occurs, it's up to you to add the appropriate actions. These actions can be anything you like. Actions are available to destroy objects, move objects around, play samples, increase the score. There are many actions to choose from.

Because there are so many options, it's easy to get lost in the confusion. The Step Through Editor becomes invaluable in this situation, since it concentrates your attention on the events that really matter in your game.

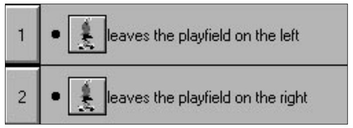
After you've gained a little experience, you'll often want to add your own events by hand, this can be effectively achieved by using the Event Editor.

The Event grid

The Events are displayed in the form of a grid. Along the left, there are a list of events which will be tested in your game.



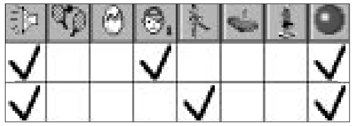
Events are indicated by a number like so, each event can include a number of different conditions. The conditions are displayed in a small rectangle alongside the event number:



1 ● leaves the playfield on the left

2 ● leaves the playfield on the right

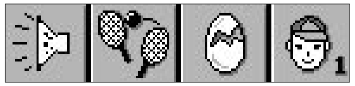
To the right of the events, there's a list of grid boxes containing your actions.



✓			✓				✓
✓				✓			✓

What the actions actually alter is represented by a series of icons at the top of the screen.

The first few actions are special. They provide basic control over your game:



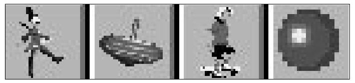
Sound Enables you to play sound samples and music's when an event occurs in your game.

Game Storyboard Controls
Move to a different level or end the game.

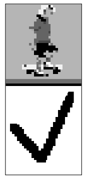
Create new objects
Allows you to create a new object at your specified coordinates.

Player actions
Changes the player's score or deducts a life. There's one icon for each player in the game.

After these, you'll see a list of all the ACTIVE objects in the current level.



Below the action icons, there are a number of boxes arranged in neat rows. Each row is linked to a particular EVENT in your game. If an action has been selected, the appropriate box will be ticked. You can inspect these actions by moving the mouse over the relevant tick.



If you want to change the actions at a box, use the mouse pointer. The left and right buttons have different functions:

The Left button
Edits your current actions displayed on the screen.

The Right button (Mac: ⌘ click)
Enables you to add new actions to your game.

The Toolbar

This consists of a series of icons which provide basic control over the Event Editor.

Goto Jumps to a different part of the Klik & Play system.

Help Calls the Klik & Play help screen for instant advice.

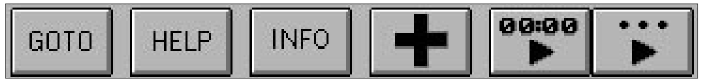
Info Displays information about the memory used by your game, at the current point in the game. The memory usage can fluctuate depending on how many objects are created during the course of the game.

New Condition
Adds a new condition to the event grid, and asks you to select a condition for testing.

Restart game
Restarts the current game from the beginning, so you can check out the effects of your changes.

Continue game
Continues a game which has been paused.

You can change the layout of these icons using a simple option from the "Edit/Preferences" menu.



Click on the "Horizontal Icons" box to turn off the standard display system. The toolbar will now appear as a horizontal strip at the base of the screen.

Summary

Before we get down to detail, here's a quick summary of the key points to remember.

- Conditions perform a single test in your game.
- Events are collections of conditions which generate one or more actions.
- Actions do things, such as playing a sample or changing the score.

Creating an Event

Creating an event is a two stage process:

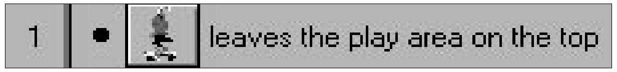
1. First choose your event and add in the conditions which need to be tested.

2. Now select the actions you wish to perform if the conditions are true. Click on the appropriate grid box with the right mouse button, and enter the actions from the resulting menu.

Editing Options

Editing an Event

Events are selected via the number icon to the left of their condition box.



1 ● leaves the play area on the top

You can use this icon to move the event up and down the event list. Simply hold down the left mouse button over the event number and drag the event to a new position. All the conditions and actions it uses will be moved as well.

If an event contains several conditions, you'll be able to edit each one individually. You can move your conditions in the event box by dragging them up and down with the left mouse button. Since the conditions are tested from top to bottom, you should test the most important items first. It could lead to a speed difference in your games.

It is best to make your selections using the dot or plus mark, to the left of the condition. This stops you from picking an object icon by mistake, which may replace the current object.

Editing an event is easy. Just click on the event number with the right mouse button and select an option from the following menu.

Add a new condition
Adds a new condition to the existing list. Your conditions will be separated by "+" (Plus) marks.

Delete the last condition
Removes the bottom condition from the list.

Delete event
Erases the entire event.

You can also edit a single condition. In this case, you should select the condition text, rather than the number. Here’s what you’ll see:

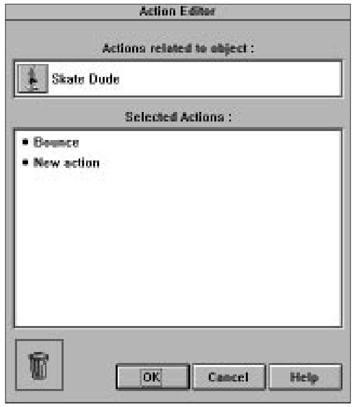
Edit	Changes an existing condition.
Replace	Replaces your condition with something completely new.
Insert	Inserts a new condition at the current point.
Delete	Removes the selected condition from the list.

Note that you should be careful NOT to select an object icon by mistake. This will edit the object rather than the condition.

Editing an Action

You can edit an action by simply clicking on a grid box with the mouse.

The left button brings up an action editor like so:



Actions related to object : Skate Dude

Selected Actions :
- Bounce
- New action

Actions related to object
Shows which object will be affected by your action. Special actions will be represented by their appropriate icons. So if for example you’re defining a sound action, you’ll see a picture of a loudspeaker.

Selected Actions
Lists all the actions which will be performed by the event. You can edit these actions by selecting them with the right mouse button.

This will bring up a list of the possible actions which can be generated. Click on “Delete” to erase the existing action.

New Action

Select this item with the right mouse button to create a new action for your game.

You can also drag these actions using the left mouse button, and delete them by dropping them over the Dustbin.

Changing an object

You can replace the objects in any condition test by just clicking on them with the mouse. A dialogue box will now be displayed to allow you to choose a new object for your condition.

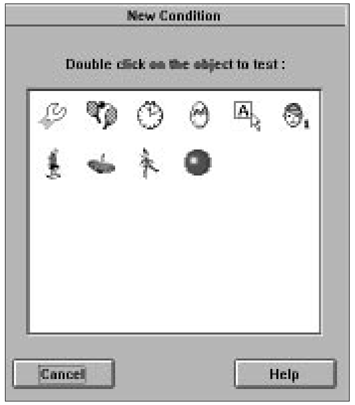
Adding an Event

You can add an event in two ways:

1. Select the "New Condition" item in the last event of the list.

2. Click on the "Add condition" icon from the toolbar.

In each case, a dialogue box will appear:



Double click on the object to test :

Each icon within this dialogue represents a group of conditions which can be tested in your game. You can select these icons with the right mouse button. A menu will now appear containing the available options.

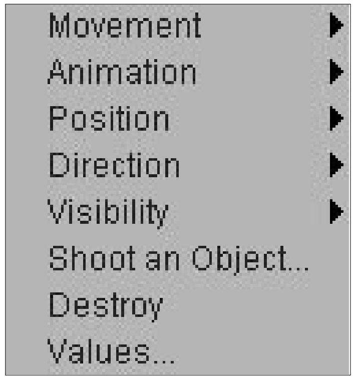
When you've made your selection, your new condition will be added at the bottom of the event box.

Adding a condition

You can add an individual condition by clicking on an existing condition with the right button. Pick the “Insert” option from the resulting menu. You can also select “Add new condition” from the pop-up menu which appears when you right click on the event’s number icon.

Adding an Action

You can add an action by clicking on one of the grid boxes with the right mouse button. You’ll now get a menu of the actions which can be performed by the event. Here’s a typical example:



Alternatively, you can select the action with the left button, and call up the Action Editor. You can then click on the “New Action” text with the right mouse button to define a new action.

Note that you’ll see a list of all the current actions whenever you move the mouse over a checkmark.

Deleting an Event

You can delete an event by clicking on its number with the right mouse button and selecting “Delete Event” from the menu. All the conditions and actions connected with this event will be erased.

You can also drag the event with the left mouse button, and drop it over the dustbin icon.

Deleting a Condition

Deleting a condition is easy. Just move the mouse over the condition text and click on the right button to display its pop-up menu. Now select “Delete” to erase your condition from the Event Editor. As with events, it’s also possible to drag the condition over the dustbin icon.

Deleting an Action

You can delete an action by just clicking on the checkmark with the right mouse button, and selecting "Delete". If there are several actions, this will erase the most recent one with the "Delete the last action" option.

You can also call up the Action Editor to delete a specific action. Click on the checkmark with the left mouse button and choose an action from the list with the right mouse button. Then call "delete" from the resulting menu. You can also drag a condition down into the dustbin.

If you want to delete all the actions assigned to an event, you can grab the checkmark with the left mouse button, and drag it over the dustbin icon.

Moving an event

You can move an event by holding the left button over its number and dragging it to a new position on the grid.

Copying a condition

Conditions can be copied around the grid by selecting them with the left button, and dragging them to a new event. Any existing conditions at this point will be completely replaced. If you drag a condition on to the event number of another event, the destination event will create a new copy of the condition.

Copying an action

You can copy an action by holding down the left mouse button over a checkmark and dragging the box to a new position. The source and destination actions must be of a similar type. So you can copy a sound action to another sound action, and copy an object action to a different object. But you can't copy a sound action to an object action.

Moving the actions

The grid is divided into a series of columns. Each column represents a particular object type, with its related actions listed down the column. You can move these columns around by holding down the left button over the appropriate icon and dragging them left or right to a new position.

Scrolling through the event list

Klik & Play allows you to add hundreds of events to any one of your games. You can page these events through the Editor using the scroll bars to the right and bottom of the screen.

Filter effects

Displaying all the events connected to a particular object

This feature allows you to remove the clutter from the Event Editor, and concentrate on particular sorts of actions.

Simply click on one of the icons at the top of the screen and the editor will show all the events and actions associated with that object. You can return the screen back to normal by clicking on the icon again.

It’s also possible to filter more than one item. If you click on an icon with the Shift or Control keys held down, each filter object will stay selected. So you could filter for actions and events associated with the score of Player 1 and aliens he shoots at, for example.

You can also list all the timer events using the filter option. Just click on the “All Events” area with the right button, and you’ll get the following menu:

Filter Timer Events
Displays all the events which use the timer.

No Filters
Show all the events and actions in the level.

Event Editor Tutorial

We’ll now test the event editor and check out some of its features.

Getting started

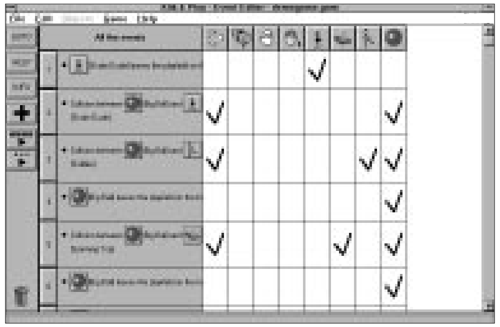
We’ll use it to add the finishing touches to the demonstration game we created in sections Section 1.1. If you haven’t already read section 1.1 and produced the demonstration game, now’s the time.

The demonstration game includes a bouncing ball, a player character, and a lot of action. But there’s nothing for the player to do. He can sit around watching things happen without the loss of a life for example.

However, we can change this situation by using the Event Editor:

Load your demonstration game into Klik & Play with the “Load game” option from the “File” menu. Now click on the “Frame 1” box with the right mouse button and select “Goto Event Editor”

You should see the following screen:

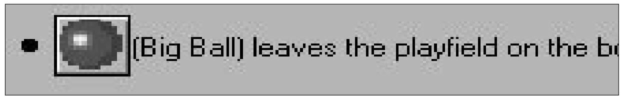


Along the top, there's a set of icons for each object in your game. These can be selected with the left mouse button to list all the events and actions associated with a specific game object.

Adding some new events to the demonstration game

With the left mouse button click on the "Ball" icon to examine the events connected with the "Big Ball".

For our first experiment we'll delete one of the events from the screen. Move the mouse over the numbered icon of the "Big Ball leaves Play area on the bottom" event.



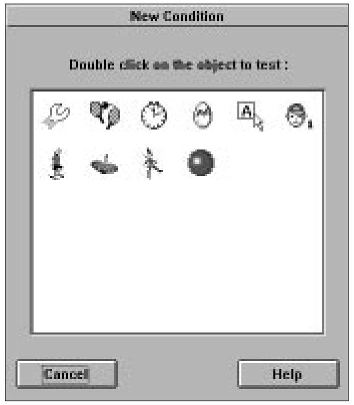
● (Big Ball) leaves the playfield on the b

The actual number may be different, as this depends on the order you created the events.

Hold down the left mouse button and drag the resulting box over to the "Dustbin" icon. When you release it the event will disappear from the list.

We'll now replace this event with a new one which provides much finer control over the ball movements.

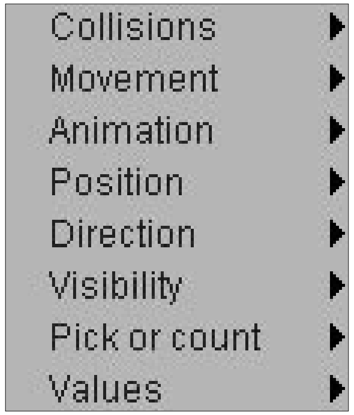
Place the mouse over the "New Condition" box at the bottom of the grid, and click once on the left button. You'll be presented with the following dialogue box:



Double click on the object to test :

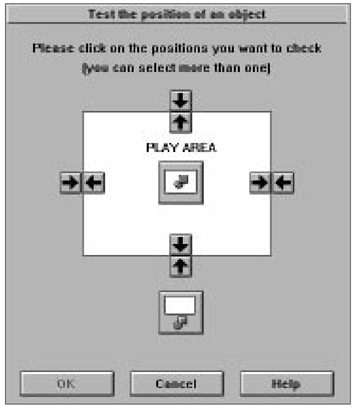
This contains a list of all the objects which can be tested in your game. You can select these objects by simply double clicking on them with the mouse.

Choose the "Big Ball" object, and click twice on the mouse. A menu will appear with the available conditions.



The option we want is "Position". Move the mouse over this option and select "Test Position of Big Ball" from the sub menu.

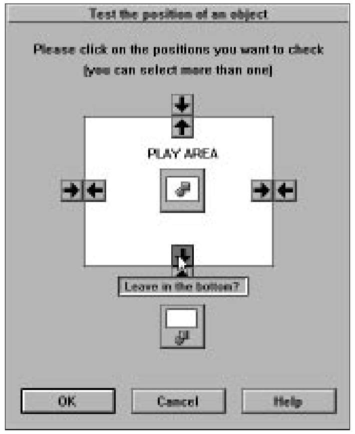
A dialogue box will be displayed:



Please click on the positions you want to check
(you can select more than one)

Note the arrow icons. These test whether an object enters or leaves the play area. When you move the mouse over them, a message pops up with the effect.

Select the arrow marked “Leaves in the bottom”, you should get something like this:



Test the position of an object

Please click on the positions you want to check (you can select more than one)

Click on “OK” to continue.

Now we’ll need to select some actions for our event.

Our first action will be to replace the ball at the centre of the screen.

Move the mouse over the current event row, and underneath the “Big Ball” icon.

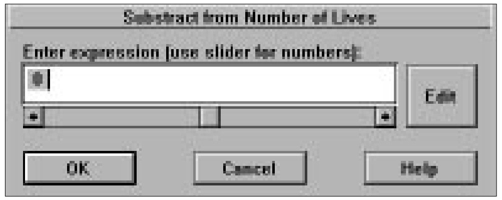
Now click on the right mouse button to bring up the action menu.

Select the “Position” option from the menu and choose “Select Position...”.

This will move the ball to a new point on the play area. You can change the position to anything you like. Just select the X or Y boxes and type in a new coordinate. But the default values are fine. They’ll replace the ball at the centre of the screen. Just click “OK” to select this action.

Our next action will deduct a life whenever the player misses a ball. Select the grid box under the “Player 1” icon with the right mouse button and pick the “Number of Lives” option. You should then choose “Subtract from number of lives”.

A dialogue box will be displayed:



Substract from Number of Lives

Enter expression (use slider for numbers): 0

Change the zero to a one. Select “OK” to continue.

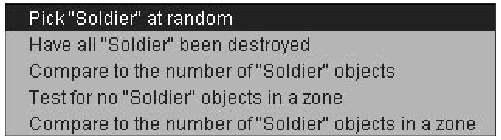
The ball has now been set up for our demonstration game. Call the Step Through Editor from the “Game” menu, and play the game. Try to catch the ball with the skateboarder. If you succeed, the ball will rebound against walls as before. If you fail, you’ll lose a life and the ball will be replaced at the centre of the screen.

After you’ve lost three lives, the Step Through Editor will be displayed, and you’ll be given the option to kill the character off. Select the “Game Storyboard Controls” icon, and choose the “End Game” option. Click on the “Goto” icon to return to the Event Editor.

We’ll now round things off by adding a couple of extra conditions. These will end the game whenever the player runs out of bricks.

First, click on the “Ball” icon to display all the conditions related to the ball.

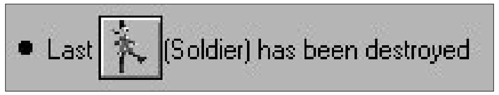
Select the “New Condition” box and double click on the soldiers icon. When the menu appears, choose the “Pick or count” option. You’ll now get the following menu.



Pick "Soldier" at random
Have all "Soldier" been destroyed
Compare to the number of "Soldier" objects
Test for no "Soldier" objects in a zone
Compare to the number of "Soldier" objects in a zone

Highlight ‘Have all “Soldier” been destroyed’

Here’s what the condition will look like:



● Last (Soldier) has been destroyed

Now click on the number to the left of the condition with the right mouse button, and select “add a new condition”.

Choose the “Spinning Top”, select “Pick and count” menu item, and click on ‘Have all “Spinning Top” been destroyed’.

Now add an action to this event. Under the Game Storyboard Controls select “Next Frame”.

And that’s it! The game is complete. Go back to the Level Editor and call the “Play Level as finished” option from the “Game” menu to play it on the screen. As you can see, it’s still a bit rough and ready. But at least it’s a playable game.

Let’s save it onto the disk. Select the “File menu” and highlight “Save As”. Type in your new name, and press Return. Your new game will now be available from your hard disk.

Have a go at extending it for yourself. Try adding new objects and supplying the events with the Event Editor. Extend the number of levels using the Storyboard Editor – have fun!

Testing tips

When you're experimenting, you may find it useful to temporarily turn events on or off. You can do this with the Always and Never conditions.

Always	Ignores the current conditions completely and performs the actions regardless. It's great for testing things like sound effects.
Never	Switches the event off and never performs the actions even if all the conditions are true. It would allow you to give your player infinite lives during testing.

Before we leave this section, we'll show you how you can add this feature to your current game.

Load your game into the Event Editor.

Select the "Number of Lives of Player 1 reaches 0" condition with the right mouse button and choose the "Insert" option. Now click on the Special icon. It's represented by a spanner.

Choose the "Always/Never" option and highlight "Never" from the menu.

Run the Step Through Editor and play your game. As you can see, the skateboarder is now totally invulnerable. When you're finished press "Esc" and "GOTO" the Event Editor again.

You can now return your game back to normal. Place the mouse over the "Never" and hold down with the left mouse button. Drag the entire condition over the "Dustbin" icon and release the button. The condition will now be erased.

Well, that's about it for this section. Here's a quick summary of the steps required to create a game:

Creating a game Checklist

1. Design your game screen and position the objects from the Level Editor.

2. Define the movement options for any active objects in your game. See Section 4.4 for details.

3. Test the game with the Step Through Editor and add in any obvious actions.

4. Test the game again and make a note of any events which are missing.

5. Call up the Event Editor and insert your new events, defining the actions as you go along.

6. Repeat steps 3 to 5 until you're happy with your game.

In the next section, we'll be discussing all the events and actions you can use in your game.

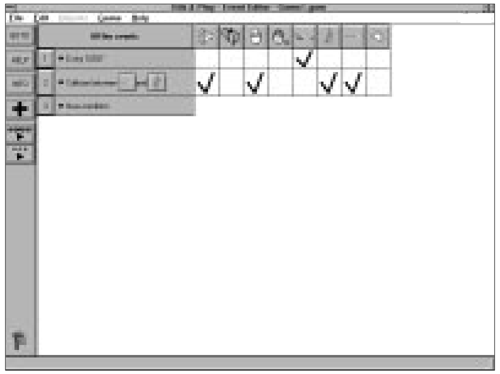
5.3 Conditions

Conditions allow your games to react to events. Do you want to know whether a missile hits one of your aliens? Or when a baddie has moved off the screen? There's a condition for all situations. Once Klik & Play has tested for a condition, it can then perform an appropriate action in your game.

Klik & Play provides a vast number of conditions, and it's easy to get bogged down by the possibilities. But there's no need to panic. Some conditions are added automatically, so you don't have to worry about them at all. An object with ball movement assigned to it will always know how to bounce against walls for example. Additional help is available from the Step Through Editor. This stops your game whenever an event occurs, and lets you immediately select a suitable action. You can use it to create your games interactively on the screen. It almost creates games for you!

What is a condition?

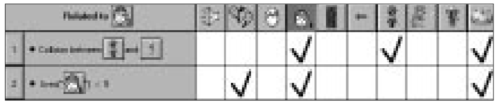
Klik & Play's main task during a game is to keep checking a list of events, over and over again. When any of these events becomes "True", the actions associated to it will be made to happen. Here's a typical event:



So while your game is being played, Klik & Play continually checks this event, if it becomes "True" (that's to say the Alien is hit by the laser), then the actions will happen. In this situation we would destroy the Alien and laser, and play an explosion sound.

An event consists of one or more conditions. If an event has multiple conditions, then all the conditions have to be "True" before the actions can happen. Here's an event that checks for a character picking up an extra life bonus and ensuring that the total number of extra lives doesn't run over 5:

Event	**Actions**
[Romeo] Collides with [Extra Life]	Destroy Extra Life
Number of lives of [Player1] < 5	Add 1 to number of Lives



Creating a new condition

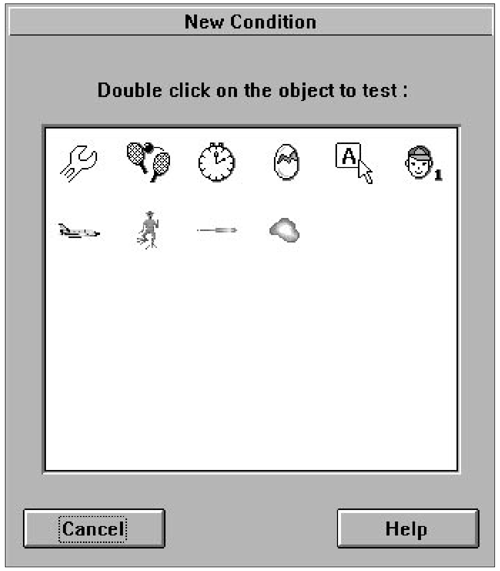
After you’ve decided which backdrops and active objects are to make up your game, call up the Event Editor via the Goto button. Now you can add conditions in one of the following ways:

1. Click on the “New condition” icon: [+].

2. Click on the “New condition” text which appears in the empty event at the base of the event list. Or click on the event number of the last event:

3. To add a new condition to an existing event, right mouse click on the event number icon. Up will pop a menu, from this you should select “Add a new condition”.

When any of the above have been selected, a dialogue box will appear, this displays a list of icons which represent groups of conditions:



New Condition

Double click on the object to test :

Here’s a summary of the groups:

Special: Enables you to compare values or define limits during a game.

Game Storyboard Controls:
Tests for the start and end of the game.

Timer: Allows for various tests based on the current time of the game.

New Objects:

Pick out selected objects or compare how many objects there are in a game.

Mouse and Keyboard:

Checks for key pressing and mouse clicking.

Player 1,2,3,4:

Test for joystick movements, the current score of the players and how many lives a player has left. There will only be icons for players if objects have been set-up to be moved by them.

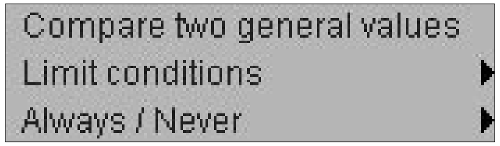
Object conditions:

Active objects, Question objects and counter objects all have their own set of conditions. You can test from the position of an active object to the answer of a question object.

Here's a detailed breakdown of these condition groups. As you read through, note the suggestions that we've added, these will help you to see how the conditions can be used within your own games.

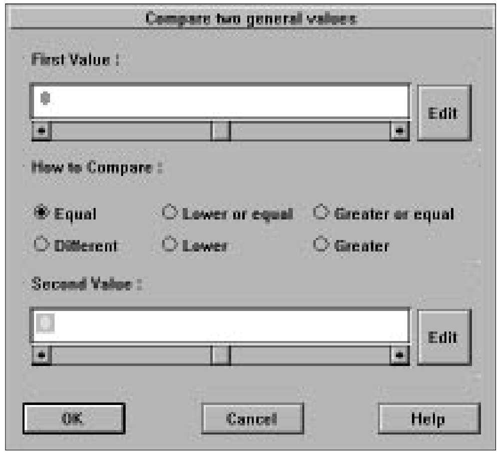
Special Conditions

Select this icon with the right mouse button and up will pop this menu:



Compare two general values

This generates the following screen:



First Value : 0

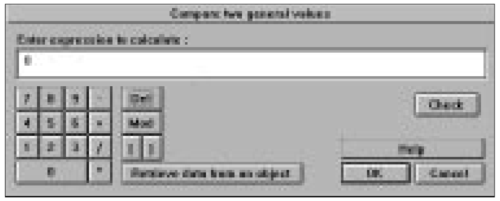
How to Compare :

● Equal ○ Lower or equal ○ Greater or equal
○ Different ○ Lower ○ Greater

Second Value : 0

You can enter the comparison values directly into the boxes, or scroll them up or down with the arrow keys. The radio buttons control the type of your comparison.

So far, we've only dealt with simple numbers, but you can easily perform more complex tests with the "EDIT" buttons. These bring up a fancy calculator accessory on the screen. They can be used to enter advanced expressions into Klik & Play.



Compare two general values

Enter expression to calculate :

0

The calculator forms the gateway to an impressive range of conditions. The "Retrieve data from an Object" option is especially valuable. It lets you test things like the speed, direction and location of any one of your objects. When it's selected, you'll be asked to choose your object from a dialogue box. You'll then be given a menu of the available items to test. Here's the total list of possible options:

Options for Active Objects

The conditions can be chosen from the following list:

Movement	Checks the movement of an object
Speed	Check how fast this object is moving (from 0 to 100).
Acceleration	Test how much the speed increasing (from 0 to 100).
Deceleration	Test to see if the object is slowing down (from 1 to 100).
Position	Reports the coordinates of an object.
X Coordinate	The X coordinate represents the horizontal position of your object. It's measured from the far left of the play area.
Y Coordinate	Measures the vertical position of an object. The Y-Coordinate is set to zero at the top of the screen, and increases as the object moves downwards. You could use these conditions to check if an object has reached an important part of the screen.
Animation	Tests the appearance of an object.

Current direction value

Which way is an object facing? Zero equal's facing right and it can be increased by 1 anti-clockwise, upto a maximum of 32.

Current Frame

Which picture is being displayed?
The frames are numbered starting from one.

Count **Number of objects on the play area?**

Allows you to check how many types of objects of a type are within the play area.

Values **Retrieve alterable value A**

Allows you to test the value of an object's internal value A.

Retrieve alterable value B

Test an object's internal value B.

Retrieve alterable value C

Test an object's internal value C.

Retrieve fixed value.

Test an object's own unique fixed value.

Options for Text Objects

Current number of paragraph

Returns the number of the paragraph displayed by a text object. The first piece of text is paragraph one, the second is paragraph two, and so on.

Options for Special Conditions

Generate random number

Generates a random number from 0 to the selected value.

Options for the Timer

Timer Count in 1/1000 since start of level

Returns the amount of time which has elapsed since the start of the level, in 1000's of a second.

Timer count, hours

Returns the number of hours the player has been stuck on the current level.

Timer count, seconds

Returns the number of seconds since the start of the level.

Timer count, 1/100 value

Tells you how many 100's of the current second have elapsed.

Timer count, minutes

Returns the elapsed timer in minutes.

Options for new objects

Total number of objects
Checks the total number of active objects in the level.

Options for players

Current number of lives
Returns the number of remaining lives for the selected player.

Current value of score
Returns a player's score.

Limit Conditions

These dictate the number of times an event will be tested in your game.

Run this event once
Performs the current only once during the current level.

Only one action when event loops
If your conditions are true, Klik & Play will perform the selected action just once, no matter how long the conditions remain in force. The actions will only be called again when the conditions jump from true to false and back to true again. This is useful for things like explosion sounds, which only need to occur once when your objects collide.

Repeat If the conditions are true, the selected action will be repeated once every loop. This is great for creating a wave of aliens at the start of a level.

Restrict Actions
Imagine a sprite colliding with an alien, you make a sound effect, but the sound keeps playing because the alien is still colliding with you. If you add this condition you can stop the actions from continually setting off.

Always/Never

Always This option is used during the testing of games. It doesn't matter if the event is false, with one of these conditions in the event all the actions will be performed.

Never Never performs an action, even if all the other conditions are true. As with Always, it's only useful when you are testing your games.

Game Storyboard controls

End Of Level
Tests for the end of the current level

Start Of Level
Checks for the start of a level

The Timer

The timer is an internal clock which ticks once every 100th of a second. It’s set to zero at the start of your game, and provides an easy way of measuring time intervals.

Every Performs an action when a selected time period has elapsed. Great for setting off aliens, shooting or creating new baddies during the course of your game.

Is Timer equal to a certain value.
Checks whether the timer has hit a predefined point.

Is Timer less than a certain value
Tests for the timer being under a specific time in the game.

Is Timer greater than a certain value
Has the selected time period been exceeded?

Create New objects

These conditions allow you to check what’s happening with regards to the number of objects on screen. You can also single out objects for specific tasks.

Pick an object at random
Chooses any object in your game at random, and lets you assign an action to it.

Pick a random object in a zone
Picks one of several objects in a “zone”. You can place the zone anywhere you like, using a resizeable box.

Pick all objects in a zone
Selects all objects in a user defined zone, and assigns an action to them.

Pick objects with reference to their value
Selects an object depending on its value.

You can select from the menu:
Alterable A
Alterable B
Alterable C
Fixed

Compare to total number of objects
Checks how many active objects there are in the game.

Compare to number of objects in a zone
Counts the number of objects in a selected zone, and compares the result to a chosen value.

Test for no objects in a zone
Have any objects entered a particular area of the screen?

The mouse and keyboard

These options let you check whether the player has hit a key or clicked with the mouse pointer.

Upon pressing a key
Checks for a single keypress. You'll be asked to enter a key to be tested.

Repeat while key is pressed
Repeats an action whilst the selected key is pressed down.

Check for mouse pointer in a zone
Allows you to define a zone and check for the mouse moving into it.

Check for mouse pointer over an object
Tests the mouse pointer being over an active object.

User clicks
Has the mouse button been clicked? You can check the left, middle and right buttons and you can also detect single and double clicks.

User clicks within a zone
Check to see if the mouse has been clicked (single or double) within a zone.

User clicks on an object
Has the mouse single or double clicked on an active object?

The Players (Player 1, Player 2..)

There's a separate list of these options for each available player.

Joystick Checks whether the player has moved the joystick in a specific direction, or pressed one of the fire buttons. The mouse buttons are treated as if they were the equivalent fire buttons.

Compare to player's score
Tests the player's score.

Compare to player's number of lives
Checks whether the player is running out of lives.

When number of lives reaches zero
Is the players game over?

Object Conditions

Each object in your game can be tested independently of all the others. In our examples, we've used "object name" to represent the name of your objects.

Collisions

Tests for collisions between objects Each collision will only be triggered once by any single event. So you're game will have plenty of time to generate the various explosion effects.

Active object
Has your object hit the chosen target object? You'll be asked to choose the target object when you create the condition.

Overlapping another active object
Checks to see if two objects are overlapping. Unlike collisions, overlapping events are tested continuously. So they'll remain true until the objects move apart.

Backdrop
Has it hit a background obstacle?

Movement

Checks the objects movement

Is "object name" stopped
Has the object stopped moving.

Is "object name" bouncing
Is the object bouncing off an obstacle?

Compare speed of "object name" to a value
Check the speed.

Compare acceleration of "object name" to a fixed value
Tests how fast the object's speed is increasing.

Compare deceleration of "object name" to a fixed value
Tests how rapidly the object is slowing down.

Has "object name" reached a node in the path
This is used to test an object which moves under path movement. When the object gets to a point on the path where a new line starts (the node), this condition will be true.

Has "object name" reached the end of its path
When an active object moving via path movement reached the end of it's trail this condition becomes true.

Copying conditions

You will find that many conditions are used over and over in a game. To make a game quicker to set-up you can copy conditions you have already defined by dragging them from one event to another. Here's how you can drag items around:
This condition:

[Bullet] Collides with [Alien]

can be dragged by clicking on the text "Collides with" and dragging it to another events number icon. You can also drop the condition onto any other existing condition, but you'll overwrite the one that was there.

Animation
Checks the object's appearance

Which animation of "object name" is playing?
Checks the type of the animation. When you enter these tests, you'll be presented with a dialogue box listing all the currently defined animation types. Pick the type you want to test for.

Has an animation finished
Has the animation reached the last frame? Use this to test for the end of explosion objects. When they have done their animation you can destroy them from the screen.

Compare current frame of "object name" to a value
Has the animation reached a selected frame?

Position Checks the position of your object

Test Position of "object name"
Presents you with a fancy dialogue box which lets you test the location of your objects relative to the play area. You can use it to check whether an object enters or leaves the screen, or if the object is within or well outside the play area.

Compare X position to a value
Check its X co-ordinate

Compare Y position to a value
Test its Y co-ordinate

Direction Checks the direction on an object

Compare direction of "object name"
Is the object moving in a specific direction? Choose the direction(s) from the "clockface". The directions start from 0 and are numbered ANTI-CLOCKWISE up to 31.

Visibility Tests the visibility of the object
Is "object name" visible
Is "object name" invisible

Pick or Count

Selects an object

Pick “object name” at random
Picks one of the current objects at random, if the object it picks has actions assigned to it, then they will be carried out.

Have all “object name” been destroyed?
Check to see if there’s no more of a type of object.

Compare to the number of “object name” objects
Checks how many of the current objects still exist.

Test for no “object name” in a zone
Is a zone free of one type of object?

Compare to the number of “object name” in a zone
Counts how many of the current objects are in a specific area of the play area.

Values Tests the objects internal values.

Compare to alterable value A
Compare to alterable value B
Compare to alterable value C
Compare to fixed value

Question and Answer Objects

Question and Answer objects have there own separate conditions.

Is Answer Correct?
Tests if the player has answered the question correctly.

Is Answer False?
Checks if the user has selected a wrong answer.

Is Answer Equal to a certain value?
Allows you to check for a particular answer. This allows you to have a selection screen, like “How many players?”

Counter Objects

Compare Counter to a value
Tests whether the counter has reached a specific value.

5.4 Actions

Once Klik & Play has detected an event, it can perform appropriate actions. It’s these actions which bring your games to life.

There are five types of actions you can use.

1. Play sounds
Play a sample of sound or a piece of music. You’ll need a sound card to hear the results.

2. Game Storyboard controls
Do things like jump to the next level, or exit from the game.

3. Change the player’s score or lives
Affect the player’s score, or the number of lives.

4. Create a new Object
Create a new object at the selected point in your game. Perfect for bullets or explosions.

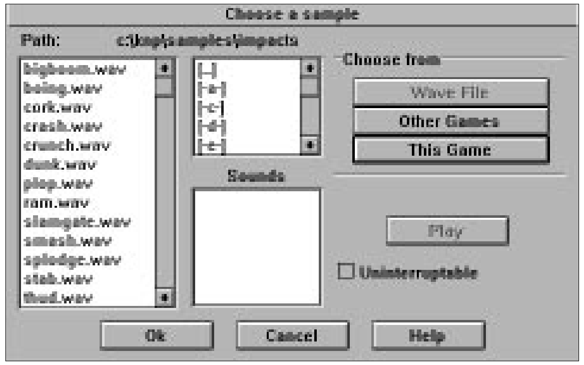
5. Change object “Active object name”
Change things like the speed, appearance, or visibility of an active object.

We’ll now have a look at each action in turn:

Sound Actions

By adding sampled sound effects or music you can help improve the overall standard of your games. You can create impressive explosions, haunting theme tunes, or interactive sound effects – the possibilities are endless.

Play Sample
Plays a single sound sample through your sound card (if connected). When you add one of these actions, you’ll be asked to choose the sample using a selector:



Path: c:\knp\samples\impacts

1. Path
Shows the current directory

2. List of samples
Lists all the ".WAV" (and ".SND" for Mac) files in the directory. Click on a sample to select it.

3. Directory window
Chooses a drive or sub directory which will be searched for samples .

4. Sounds
Lists all the sounds held in the current game or disk based game. If you double click on a ."WAV" file it will be played so that you can preview it before deciding to load it.

Wave file Loads a ".WAV" file from the disk

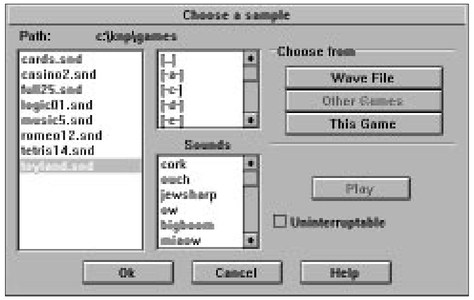
Other games
Grabs samples from other games.

This game
Show the samples used so far in the current game.

Play Plays the highlighted sample. You'll only hear the effect if you've got a sound card connected.

Uninterruptible
Toggles uninterruptible playback mode. If a sample is made uninterruptible, it will play all the way through until the sample is finished. So other sounds will not be heard until this one stops.

Play Music
Plays a section of music. As with samples, you'll need to choose a music file from the disk before proceeding.



Path: c:\knp\games

cards.snd
casino2.snd
full25.snd
logic01.snd
music5.snd
romeo12.snd
tetris14.snd

[-]
[-a-]
[-c-]
[-d-]
[-e-]

cork
ouch
jewsharp
ow
bigboom
miaow

1. Path
Shows the current search directory

2. List of Music
Displays all the ".MUS" files in the chosen directory. You can select a piece of music by clicking on the filename.

3. Directory window
Chooses the drive or sub-directory which will be displayed in the file list.

4. Music
Lists all the tunes contained in the presently highlighted ".MUS" file.

5. MIDI file
Reads a ".MID" file from the disk.

6. Other games
Grabs a tune from another game.

7. This game
Picks the music from the current game.

8. Play
Plays the highlighted music. You'll only hear the effect if you've got a sound card connected and your Midi drivers have been set-up properly from the Windows Control Panel. See your sound card manual for further instructions.

9. Uninterruptible
Toggles uninterruptible playback mode. If a section of music is made uninterruptible, it will play all the way through until the selection is finished. So other selections will not be heard until this one stops.

Play and loop sample
Repeats the selected sample continuously. Great for adding a background atmosphere.

Play and loop music
Plays your music for the duration of your game, or until it's stopped by another music action.

Stop any sample playing
Silences any sampled sound effects. Useful for killing off any looped samples.

Stop any music playing
Turns off the music.

Game Storyboard Controls

These actions affect the entire game, and let you move the player through the various levels.

Next Frame
Jumps to the next frame in your game. The order of frames is set-up in the Storyboard Editor.

Previous frame
Moves to the previous frame.

Jump to frame
Ignores the Storyboard and skips directly to your chosen frame.

Restart the current level
Replays the current level from the beginning.

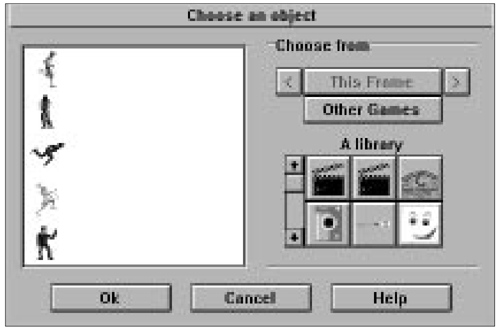
Restart the game
Restarts the game from the first frame.

End the game
Quits the game.

Create a new Object

As the name suggests, this action creates a new object in your game.

When you define one of these actions, you'll be presented with the following dialogue box.



Choose from

<This frame>
Chooses an object from any level of the present game.

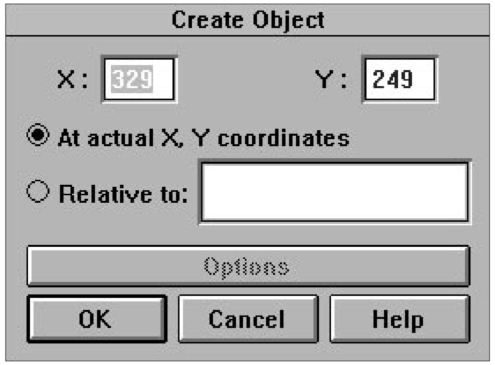
Other Games
Grabs objects from a completely different Klik & Play game.

A Library
Provides a box full of library icons. These icons can be selected with the mouse to display their contents on the screen.

The selection window

Contains all the objects available from the current game or library. You can now choose your object by clicking on it with the left mouse button.

Once you've picked an object, you'll need to position it on the screen. A dialogue box will appear for just this purpose.



Create Object

X: 329 Y: 249

● At actual X, Y coordinates

○ Relative to:

At actual X,Y coordinates
Displays your new object at a fixed position on the screen.

Relative to
Takes the coordinates from an another object

Options If you're displaying your object using the relative option, you'll need to define its starting point like so:

Originating from hot spot
Positions the new object at the relative object's hotspot.

Action point
Places the new object at the relative object's action point.

Located **User defined point**
The new object will be created relative to where the user placed the cross hairs.

In direction of
Locates the new object in relation to the direction of the relative object So if a cloud of smoke is being created behind a car, it will always appear behind the car, no matter which direction the car is pointing.

Orientation **Normal**
The object will be created pointing in the direction it is normally displayed in.

In direction of
The created object will take the same direction as the relative object.

Player Actions

Change Score
Changes the player's score

Set score
Sets the score to a new value.

Add to score
Increases the score by a chosen amount.

Subtract from score
Reduces the score.

Change Lives
Changes the number of player's lives.

Set number of lives
Sets the number of lives to a new value.

Add to number of lives
Increases the number of lives.

Subtract from number of lives
Reduces the number of lives.

Affect input

Ignore control
Stops the object being controlled by the player. Any mouse, joystick, or keyboard commands will be ignored. You could use this in a game to 'freeze' a player momentarily.

Restore control
Gives the player control again.

Object Actions

These actions affect the active objects.

Movement
Changes a previously defined movement setting.

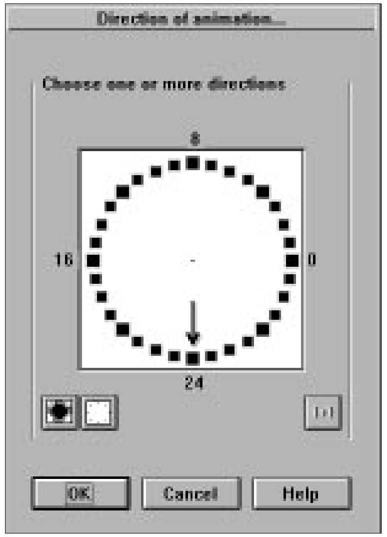
However the movement options available depends upon the type of movement selected:

Movement:	**Options available:**
Mouse	Stop, start.
Bouncing ball	Stop, start, set speed..., bounce.
Path movement	Stop, start, set speed..., wrap around play area, reverse.
Platform	Stop, start, set speed..., set maximum speed..., wrap around play area, bounce.

Race car	Stop, start, set speed..., set maximum speed..., wrap around play area, bounce.
8 directions	Stop, start, set speed..., set maximum speed..., wrap around play area, bounce.
Static	No options available.
Stop	Stops an object in its tracks
Start	Starts an object moving again. The speed and direction will be the same as when the object stopped.
Set speed...	Sets the speed of your object. Move the slider to the right to increase the speed. Drag it to the left to slow things down.
Set maximum speed...	Forces a maximum speed which your object cannot exceed.

Wrap around play area	When your object moves outside the play area, this option will automatically reposition it at the opposite side. Super for making scrolling star effects!
Bounce	Bounces an object backwards when it hits a wall. If it's a ball object it may bounce in any manner of directions, it depends how its movement was defined.
Animation	These actions change the appearance of your objects.
Stop	Stops an animation sequence completely.
Start	Starts an object animating again.
Change...	**Animation sequence...** Flips to a new animation sequence from the available list. When you're creating these actions, you'll be presented with a list of the currently defined animation for the object you want to change. You can make your selection by simply clicking on a type with the left mouse button.

Direction of animation...
Chooses a new direction for your animation. You'll be asked to enter the direction using a dialogue box:



Note: Click on as many directions as you like. If there's more than one, the direction will be chosen at random from your list.

Speed of animation...
Sets the animation speed. Larger values are fastest

Restore **Animation sequence**
Reverts back to the animation sequence before it was changed.

Direction of animation
Restores the last animation direction

Speed of animation
Uses the previous animation speed.

Position Sets the position of your object on the play area.

Select position...
Moves the object to a new location. You can choose where to move the object using a dialogue the same as Create Object above.

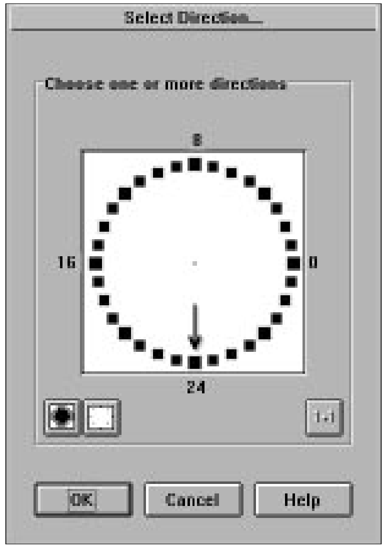
Swap position with another object
Swaps two or more objects around on the screen. All objects with this action will be swapped. This is ideal for shuffling cards in a game!

Set X coordinate...
Sets the horizontal position of your object.

Set Y coordinate...
Sets the vertical position of the object.

Direction Turns your object around.

Select direction...
Changes the direction of your object. You can choose the new direction using a simple dialogue box.



Feel free to select as many directions as you like. If there are several alternatives, Klik & Play will pick a direction from your list at random.

Look in direction of...
Turns your object so that it's pointing towards the selected target.

Visibility Flicks your object into view.

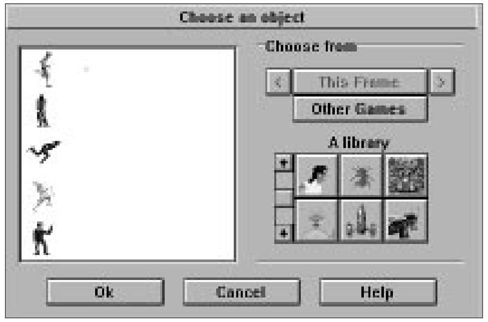
Make object invisible
Makes an object vanish from the play area. It will still be at the same location but will not collide with other objects. Use this to create invisible monsters!

Make object reappear
Redraws a hidden object at its original position

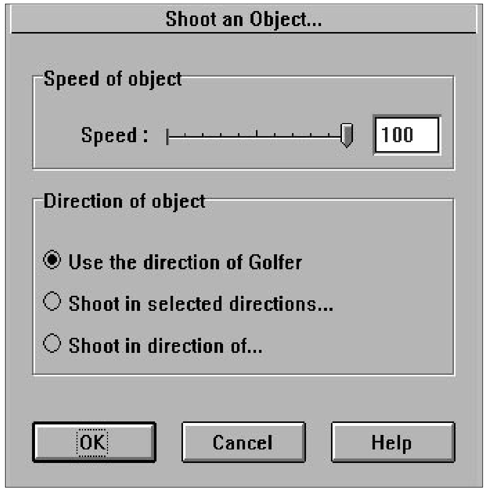
Flash object
Removes an object from the screen for a defined period, and then flashes it back again. It will keep flashing until you make it reappear again.

Shoot an object

Shoots a new object from an object, just like a bullet. When you call this option, you'll be asked to choose your bullet from a selector box.



You'll now be required to enter the speed and direction of your new bullet.


Shoot an Object...

Speed of object

Speed : 100

Direction of object

● Use the direction of Golfer

○ Shoot in selected directions...

○ Shoot in direction of...

Speed Sets the speed. Move the slider to the right to speed things up. Drag it to the left to slow things down.

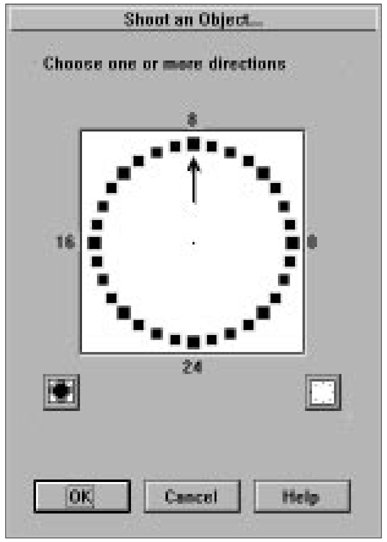
Direction of object

Selects the direction of a bullet.

Use direction of "object name"

Lines the bullet up with the object the projectile is being shot from and fires it in the direction in which this object is moving.

Shoot in selected directions...
You can choose the available directions from a dialogue box:



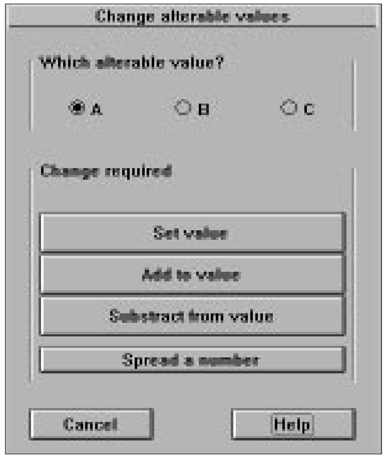
Klik & Play will now pick one of these directions at random.

Shoot in direction of...
Points the bullet at the selected object. Great for guided missiles!

Destroy Kills an object, and removes it from the screen. If the object has a disappear animation, it will be played first before it's fully erased from the display.

Values... Changes one of the object's internal values

You'll now be asked to choose an alterable value, and select the operation.



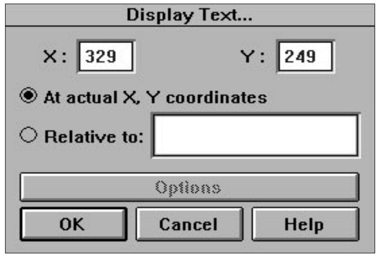
● A ○ B ○ C

A	Picks alterable value A.
B	Affects alterable value B
C	Selects alterable value C.
Set value	Loads your value with a new number.
Add to value	Increases an alterable value by the chosen amount.
Subtract from value	Reduces an alterable value.
Spread a number	Generates a random number. You can enter the range from a dialogue box. The number will now vary from 0 to the chosen range.

Text Object Actions

Display Text

Displays a piece of text at the selected point on the screen. When you create one of these actions, you'll be presented with a dialogue box like so:



X: 329 Y: 249

● At actual X, Y coordinates

○ Relative to:

At actual X,Y, coordinates
Prints your message at a fixed position on the screen.

Relative to object
Draws your text near the selected object.

Options If you're displaying your message alongside an object, this button lets you define its relative position.

Originating from

Hot spot
Starts the text from the object's hotspot

Action point
Places the message at the object's action point.

Located **User defined point**
The text will be created where the user places the cross hair.

In direction of
Places the new text object in relation to the direction of the relative object.

Erase Text
Removes a message from the screen.

Set colour of text...
Changes the text colour

Set Paragraph...
Displays one of several messages you've defined for the object.

Next Paragraph...
Prints the next piece of text from the object's message list.

Previous Paragraph...
Shows the previous message from the list.

Question and Answer Object Actions

Ask the question
Turns on the question object, and waits for the player to select one of the answers. You can test for the result using an event. See Section 5.2.

Counter object actions

Set counter
Sets the counter to a new value.

Add to counter
Increases the counter by the selected amount.

Subtract from counter
Reduces the counter.

5.5: Creating objects within a game

Klik & Play allows you to create new objects at any point in your game. Supposing you've generated an asteroid which breaks apart into several fragments when it's hit, or the player fires off a bullet at an attacking spaceship. These events will create new objects which didn't exist at the start of your game.

In a few moments, we'll be showing you how you can create objects in your own games. But first, there's a bit of jargon to get through.

Klik & Play uses the following terms:

Parent object
Generates your new objects on the screen. It's the asteroid which explodes, or the spaceship which fires the bullet.

Child object
Is the new object you're going to create. It's the rock fragment spinning away into space, or the bullet darting towards an enemy.

So much for the theory. Let's have a go at creating some of these objects for ourselves:

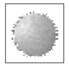
Creating a child object tutorial

First, select "New game" from the "File" menu to provide a blank screen for our experiments. Jump to the Level Editor by clicking on the "Frame 1" box with the right button, and highlight the "Goto Level Editor" option.

We're now ready to pick a parent object for our demonstration.

Select the "Heaven, Earth, Fire and Water" library from the list. It looks like this:

Now pick the "Sizzling sun" object from the shelf.



Move it over the centre of the playing area, and drop it into position with the left mouse button.

The next step, is to create a child object for our sun. We can do this with the help of the Event Editor. So without any more ado, select the "Event Editor" option from the "Game" menu.

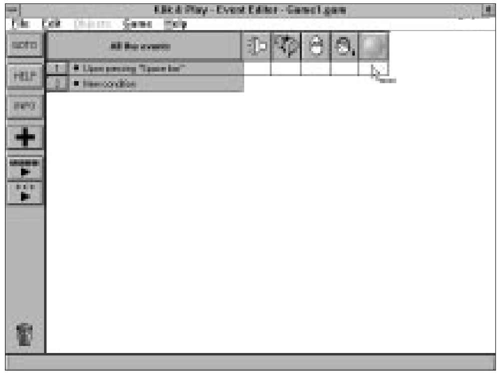
We’ll begin by defining an event to fire off our new object on the screen. The easiest option is to use the keyboard. Click on the “New condition” event and choose the “Mouse and Keyboard” icon with the right button.

When the menu appears, select “The Keyboard” and highlight the “Upon Pressing a Key” option.

You’ll be immediately asked to press a key to be tested. Hit the spacebar to assign it to the event.

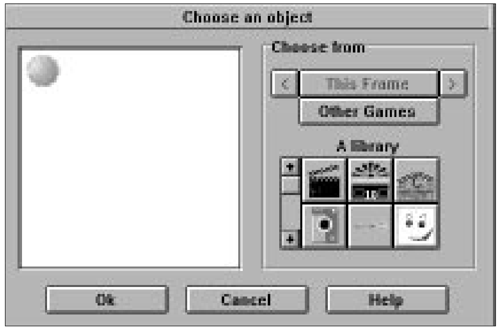
We’ll now need to set-up an action which will shoot an object on the screen.

Move the mouse to the grid box just below the “Sizzling Sun” icon.


Klik & Play - Event Editor - Game1.gam
File
Edit
Objects
Game
Help
All the events
Upon pressing "Space bar"
New condition

Hold down the right button and pick the “Shoot an Object” option.

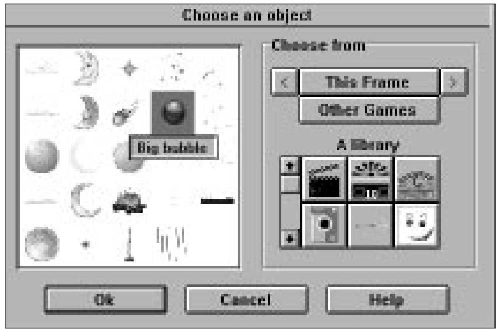
You’ll be asked to choose an object you wish to fire.



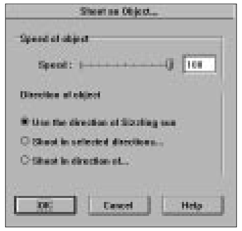
The object we’ll be using is called “Big Bubble”.

It can be selected by clicking on the “Heaven, Earth, Fire and Water” library.

and choosing the “Big Bubble” object.

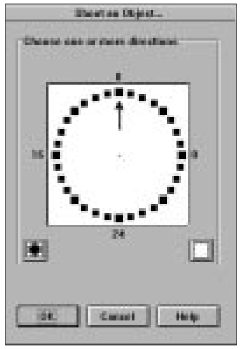


A new dialogue box will be displayed so that you can choose the direction of your new object.

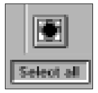


Call the “Shoot in selected directions...” option to pick a direction at random.

This will present you with the following screen:



You can choose a random direction by clicking on the “Select All” icon.

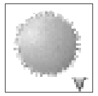


Now repeatedly select the “OK” buttons until you get back to the Event Editor.

Enter the Level Editor using the appropriate option from the “Game” menu.

And have a look at the “Sizzling sun” object on the screen.

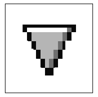
If you see an arrow icon in the bottom right corner you can proceed immediately to the next section.



If not, call up the “Preferences” option from the “Edit” menu, and select “Show Objects created within a game”. The arrow will now appear.

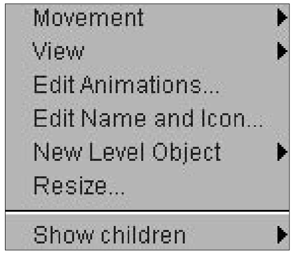
Displaying and editing a child object

The downward pointing arrow indicates that the current object has one or more children:



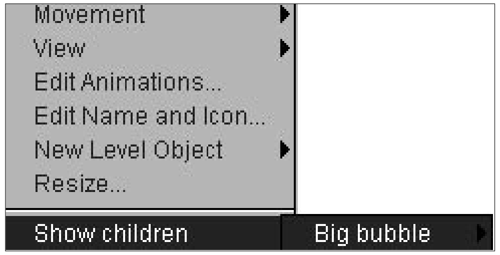
You can display these children using the following procedure:

Click on the “sizzling sun” with the right mouse button.

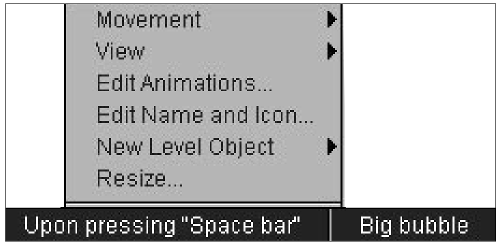


As you can see, there’s a new option called “Show Children” at the bottom of the menu.

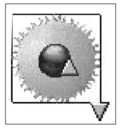
When you select this option, you’ll get a list of children objects created by the current parent. At the moment, we've only defined a single child. So the menu will look like this:



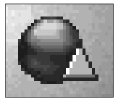
If you click on the "Big Bubble" option, yet another menu will appear. This lists all the events which can generate our new object.



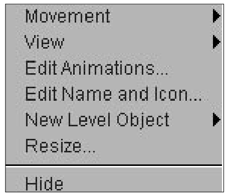
It can be selected to show the child object on the screen.



The bubble will now be displayed at the centre of the sun. It's marked with an upward pointing arrow:



You can edit this bubble using all the standard options. Select the bubble with the right mouse button, and you'll get a pop-up menu like so:



You can use these commands to change the position, appearance, and movement pattern as normal.

The "Hide" option is new. It lets you remove the big bubble from the screen when you've finished editing.

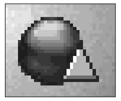
Note that it's perfectly possible for a child object to have its own additional children! If this happens, it will display both up and down triangles and its menu will hold the "Show children" and "Hide" menu options as well.

Another point to consider, it that if your child objects are very small, you may have trouble seeing them on the screen. Use the arrow marker as a guide to their position.

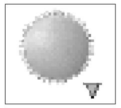
Now play the Level as finished and continually hit the space bar.

Summary:

- The up arrow indicates a child object.



- The down arrow marks out a parent object.



- Child objects are created from the Event Editor, using the "Shoot an Object" and "Create Object" actions.
- There's a "Show Objects created within a game" option from the "Edit/Preferences" menu which lets you turn the child and parent arrows on or off.