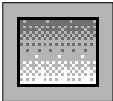


4.0 Objects

Types of Object

There are eight types of objects to choose from:



Quick Backdrop Objects

Quick Backdrop Objects are perfect for sunsets and seascenes. The difference these and normal Backdrops lies in the way they are drawn. Quick Backdrop Objects don't have their own images. They are generated directly from Klik & Play, using a variety of fancy fill patterns. This allows you to create simple skiescapes,wallpapers, and bars, using the absolute minimum of memory.



Backdrop Objects

Backdrop objects are fixed in position for the duration of your games. They are used for things like walls, doors, or rocks. Each Backdrop Object is assigned to a single image, which can be either loaded from an object library, drawn using the built-in Picture Editor, or imported from your favourite graphics package. Backdrops can also be used as obstacles, platforms and ladders.



Active Objects

Active Objects have all the elements which enable the object to move around the screen, or react to events. Obvious uses are flying spaceships, bouncing balls or player characters. Active Objects are also important for static object purposes, such as targets in pinball, where a once previously static element has been touched and it now becomes active or performs an action.



Text Objects

These display simple messages or titles. Each text object can have it's own list of paragraphs, which can be printed on the screen at the appropriate points in your game.



Question Objects

Question Objects provide you with a simple way of adding multiple choice question and answer sequences to your games and educational programs. They display your question on the screen, and wait for the player to select an answer with the mouse. Depending on the result, your game can then perform a suitable action.



Score Objects

Score Objects keep a running total of the player's score, and automatically display it on the screen. You can print the score in any of the available TrueType fonts, and in any size.



Lives Objects

With this type of object you can display how many lives a player has during the game. As the player gains or loses lives, this object will update to reflect this. You can easily choose what image will define a life.



Counter Objects

These are great for displaying the current fuel level of a car in a game. Or you can use them to hold values that are important for game logic.

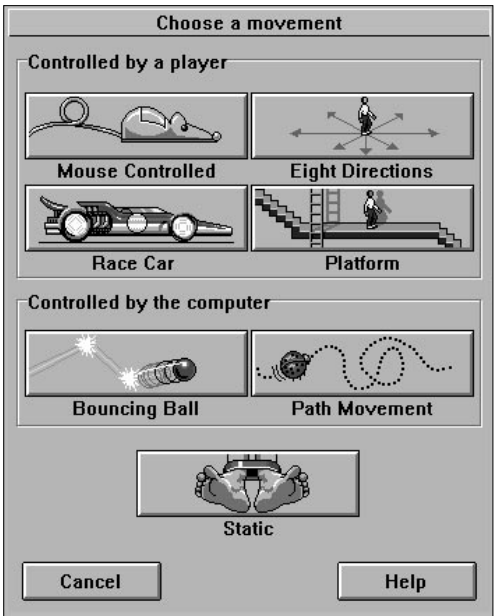
4.1 Making your objects move

Active objects provide the action in your games. They give you the power to sweep aliens down the screen, control a world saving character, bounce balls around your display and much much more.

Basic Principles

There are eight movement systems to choose from. To access the menu allowing you to select the particular type of movement you want, point at your particular object and press the right mouse button. From the resulting menu choose the option "Movement", from this a sub-menu will appear, from the sub-menu choose the option "Select Movement".

This presents you with the following dialogue box.



Each icon provides a different control method for your object.

Here's a quick list of the possibilities:

Player Controlled movements:

Make the object controllable by a player.

Mouse movement

Assigns an object to the mouse. Perfect for the bat in a rebound game.



Eight Direction Movement

Controls your object from the keyboard or joystick (if connected).



Race car

Simulates a bird's eye-view car movement.



Platform

Gives a character platform game movement.



Computer controlled movements

Klik & Play will move objects with these types of movement.

Bouncing ball

Bounces your object around the screen.



Path movement

Allows you to move your object through a predefined movement pattern. Great for attack sequences in an arcade game.



Static (Default)

Leaves your object in its original position.



Player controlled movements

Mouse movement

The mouse provides a simple way of controlling an object in one of your games. It assigns your object directly to the mouse pointer.

When you call this option, your object will be surrounded by a rectangular box. This represents the limit within which your object can move on the screen.



You can expand this area by dragging one of the square control points with the mouse. The movement zone is centred at the object's hot spot. So if you position the object from the Level Editor, the zone will move as well. Klik & Play won't let you drag the box outside the object. If you try, the box will spring back to the hot-spot, changing shape in the process.

You can test the movement at any time by selecting the "Try Movement" button from the dialogue box:

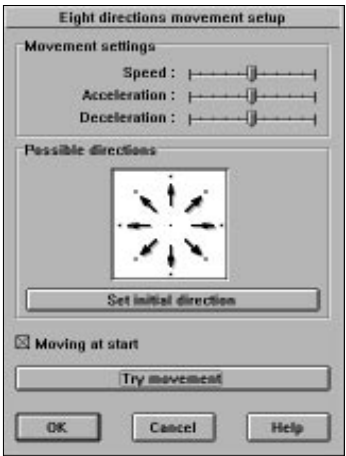


Move the mouse around to "try" the mouse movement, then press the "Esc" key to stop the test.

Note that Klik & Play also allows you to read the mouse coordinates directly from your game. The Event Editor provides a series of "conditions" for this purpose. See Section 5.3.

Eight direction movement

When you select this option the following dialogue box will appear:



If you're an experienced gamer, you'll recognise this control system immediately. This option moves your object using either the Joystick or the cursor arrows. It's perfect for arcade games.

The reason for the "eight direction" bit, is that this is the maximum number of directions available from the joystick. You can adjust the responsiveness like so:

There are 3 movement settings:

Speed Sets the speed your object will be able to move at. Simply adjust the slider to the left to decrease speed, or to the right to increase speed.

Acceleration Determines how long it will take for your object to reach its final speed. For example you may wish to have a high acceleration speed if your object is a car for example, on the other hand if your object was an Elephant you would want the acceleration to be much slower.

Deceleration Determines how long it will take for your object to stop. If we were setting the deceleration of the car, it would take a lot longer to stop than the Elephant as it is moving at a much faster speed.

Possible directions This limits your object movements to the chosen directions.

You can turn a direction on or off by simply clicking on one of the square points with the left mouse button - an arrow will now point to the square to indicate that this direction can be moved in by the object.

Set initial direction

Sets the direction your object will be facing at the start of the game. If you pick several directions, Klik & Play will choose one at random.

Moving at start

This feature specifies whether your object will be moving when the game begins.

Race Car

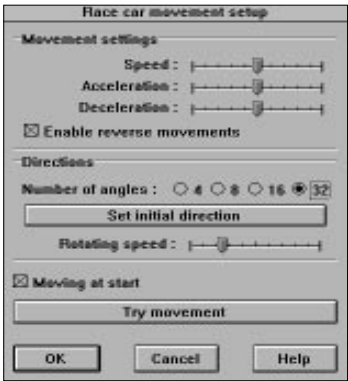
The Race Car system simulates the movement of a race car on the screen. The car is seen from a birds-eye (top down) view, and can be steered with the arrow keys or joystick.

The player is provided with the following commands:

Accelerator	Up arrow	Joystick Up
Brake	Down arrow	Joystick Down
Turn Left	Left Arrow	Joystick Left
Turn Right	Right arrow	Joystick Right

Obviously, this system is not just limited to cars. The same options can be applied equally well to anything from a sailing boat to an aeroplane.

You can set the performance using a simple control panel.



Movement settings

Speed Sets the cars normal cruising speed.

Acceleration Determines the effect of the accelerator. If you choose a large acceleration, the car will race away at the slightest touch on the gas pedal. Great for a Ferrari! If the value is small, your object will speed up slowly, like a heavy truck.

Deceleration

Controls the brake! The higher the value, the faster your object will slow down.

Enable reverse movement

Provides your object with reverse gears. If it's turned off, you'll only be able to move your car forward.

Directions

Number of angles 4, 8, 16 and 32

These buttons set the number of turning directions. Here's a list of the possible options:

Directions	Angle of turn	Effect
4	90°	Very coarse
8	45°	Rather jerky
16	22°	Smooth
32	11°	Very smooth

As you can see, the higher the number, the smoother the turning effect.

Note that you can easily assign a different picture to each of the available directions. The animation editor provides you with a built-in rotation option which will generate the entire sequence automatically. See Section 4.4.

Rotating speed

Sets the turning speed of your object. If you increase this value, you'll tighten up the turning circle, if you reduce it, the turn will be more gradual, and it will take some time to change direction.

Set Initial direction

Selects a direction for your car at the beginning of your game. If you enter several directions, Klik & Play will pick one at random.

Moving at start

This option determines whether your object will be moving when the game starts.

Try movement

Tests your movement on the screen. Press the Esc key, or select the "Stop" icon to abort.

Platform Movement

As the name suggests, Platform Movement is mainly used for setting up platform games. It allows you to make your characters "walk" along a landscape or floor.

You can control your character using the following options:

Walk Left	Left Arrow	Joystick Left
Walk Right	Right Arrow	Joystick Right
Climb	Up Arrow	Joystick Up
Jump Left	Left Arrow + Shift	Joystick Up and Left
Jump Right	Right Arrow + Shift	Joystick Up and Right

Movement settings

Here's a list of the available movement settings:

Speed Chooses the running speed of your character. Move the slider to the right to speed your object up.

Acceleration Determines how long it will take for your character to reach his final speed. A large value makes the character spring ahead. A small value gradually increases the pace as the character moves.

Deceleration Sets the slipperiness of the floor. If it's large, the character will stop immediately when you release the control. If it's small, he will gently slide to a halt.

Gravity Changes the speed at which a character falls towards the ground.

Jump Strength Enters the jumping power of your character. The larger the value, the further the character can jump. Gravity will also have an effect on how this option works.

Jump Controls These change the control system used for the jumps.

No Jump Turns the jumping off.

Up Left/Right arrow Allows the player to jump using a combination of the Up arrow key, and either the left or right arrows.

Button 1 The character will now jump when the player presses the fire button from the joystick, or with the key assigned to button 1 (Shift as default).

Button 2 Jumps when the second fire button, or button 2 key is pressed (Control as default).

Set Initial direction Picks a direction for your character at the start of the game. If you select several directions, Klik & Play will choose one at random.

Moving at start This option determines whether your character will be moving when the game begins.

Try movement Tests your character on the screen. Press "Esc", or select the "Stop" icon to abort.

Once you've defined one of these platform objects, you'll need to create some obstacles for it. These can be generated using either Backdrop or Quick Backdrop objects.

Here's the procedure:

Move your backdrop objects into position, and select them with the right mouse button. Now call up the "Obstacle" command from the pop-up menu. You'll be presented with the following options:

- No** Moves your object into the background.
- Yes** Defines the object as a normal obstacle, such as a wall.
- Platform** Creates a platform which can be used as a floor for a Platform object.
- Ladder** Makes a ladder which can be climbed by a platform object.

Computer controlled Movements

These options control your object directly from Klik & Play. They are used to generate anything from the attack sequences for your aliens, to the balls in a rebound game.

Bouncing Ball

This bounces your object around the screen. It's mainly used for pinball type games, but it can also generate simple movement sequences for your aliens. Here's the set-up box:



Movement settings

Speed
Sets the speed of your object on the screen.

Ball Deceleration

Normally the deceleration is set to zero, and the ball bounces on a frictionless surface. So it will move around forever. If you increase this value your object will lose speed as it moves. After a while, it will grind to a halt, just like a pinball.

Bounce Randomiser

Gives the ball a random chance of bouncing off into different directions. The higher the setting, the more varied the effect. If you'd prefer your rebounds to be predictable, you can turn this feature off by sliding the randomiser bar to the left.

Bounce Security

This jiggles your objects around to stop them getting stuck in a corner. As a result, your rebound effects will become a little more random.

Directions

Number of angles 8, 16, 32

Chooses the number of rebound angles in your game. The more angles you select, the smoother the bounce effect.

Set Initial direction

Picks a direction for your ball at the start of the game. If you select several directions, Klik & Play will choose one at random.

Moving at start

Starts your ball moving when your game begins. If you turn this option off, you can release the ball using an appropriate action from the Event Editor.

Try movement

Bounces your ball around the screen. Press "Esc", or select "Stop" to abort.

Path Movement

This option allows you to set-up a predefined movement path for your object. Supposing you wanted to create a guard who patrols the screen? Or a bird that dive bombs a player. These patterns are easy with Klik & Play.

The Path Editor

The Path Editor is the key to creating impressive movement effects in your games.

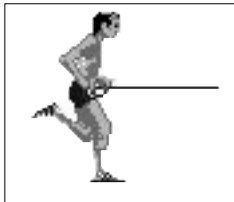
Select "Path Movement" from the menu and the following dialogue box will appear:



Your movement patterns are made up of a number of points. These points provide a series of stepping stones for your object. Whenever your object is moved, it will jump from point to point (nodes) in the sequence.

At the start, you'll see an "anchor" at the hot spot of your object.

The anchor represents the first point in your movement pattern. You can create additional points using the "New Line" icon. This stretches a line to a new position on the screen.



You can also generate smooth curves using the "Tape Mouse" option. This samples the mouse position at regular intervals, and inserts the appropriate points into your movement sequence.

The Path Editor is controlled using the following icons:



New Line Adds a single line to your movement. Normally, your line will be placed a the end of your current pattern. But you can also choose the insertion point directly with the mouse.

When it's selected, the mouse will be assigned to a new point in the path. You can now move this point anywhere you like. The line will stretch accordingly. Once you're happy with the results, click on the left mouse button to fix the point into position.



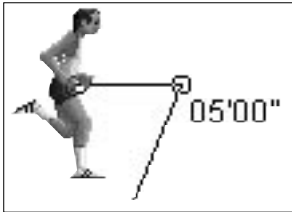
Tape Mouse Records a pattern using the mouse. Just hold down the left button, and drag the mouse through your movement sequence. When you release the button, your new path will appear on the screen, ready for immediate editing. Note: The faster you drag the mouse, the fewer points will be generated, and the coarser the effect.



Pause Stops your object at the current point, and waits for a specified time interval.



Click on the "Seconds" box to enter the number of seconds, and select the hundredths box to fine tune the delay. Each point in the sequence can have its own optional delay value. The delay will be shown as a small number in the path definition.



Loop the Movement

This repeats the pattern automatically whenever an object reaches the end of the movement sequence. The movement restarts from your object's existing screen position.

When Klik & Play runs out of points, it follows the pattern from the current object coordinates.



Reverse at end

This feature only takes effect when an object reaches the end of your movement pattern. It turns the object around, and moves it back the way it came.



Reposition object at end

Replaces your object at its original starting position after it has completed the movement.



Speed

Sets the speed of your object. You can change the speed at any point (node) in your movement path.

Try movement

Tests your movement on the screen. Click on "Stop" or press "Esc" to abort.



Example

Lets create one of these patterns to play around with:

Your first task, is to select an object to be moved. A good object to choose, is the Penguin from the "Animals and Birds" library.

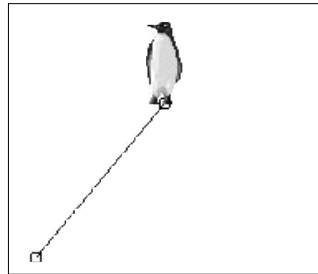
Place the Penguin at the centre of the screen, and click on it with the right mouse button.

Now call up the Path Editor like so: Move the mouse over the "Movement" option, and choose "Select Movement" from the sub-menu. Click on the "Path Movement" icon to enter the Path Editor.

You're now ready to create a simple movement pattern.

Select the "New line" icon to add the first line. The mouse will be assigned to your new point. As you move it across the screen, a line will stretch from your object to the mouse.

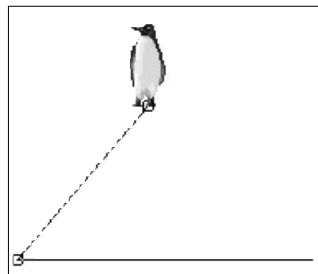
Position the mouse slightly down and to the left of your object. You should see something like this:



Click once on the left button to fix the line in place.

Now add in the next line in your sequence. Select "New line", and stretch the line to the right.

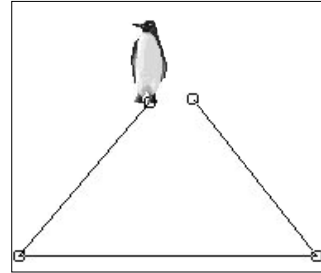
Here's what you're aiming for:



As before, click on the left button to drop the line into position.

Repeat this procedure for the final line in your pattern. Drag the end point just to the right of your starting position.

The completed movement pattern should look like this:



If you've made a mistake, you can edit your points directly from the screen. Just place the mouse over the chosen point, and click once with the left button. You can now drag your point to a new position.

Let's test this pattern out on the screen. Click on the "Try movement" icon, and watch the Penguin move through its paces. When you've had enough, select the "Stop" icon to abort.

So far, your object only performs a single loop. You can repeat your pattern continually by selecting the "Loop the movement" icon from the Path Editor. Once it's highlighted, test your pattern again with "Try Movement".

Your object should now skip across the screen, gradually drifting to the right. This happens because each new loop starts from where the old one left off.

You can also select the "Reverse to End" icon. This turns your object around when it reaches the end of the pattern. So it moves back and forth through your movement path.

The remaining option is "Reposition Object at End". If you've been following this example, you should first turn off the "Reverse to End" feature by clicking on its icon. You can then select "Reposition Object at End", and test the effect with "Try Movement". Your object will move through your pattern, and jump back to its starting position when it reaches the final point.

Now it's time to experiment a little for yourself. Have a go at adding your own lines to this sequence.

Here are a few tips to get you started.

1. Any point can be edited directly on the screen. Place the mouse over your point, click once to make it flash, now hold down the left button and you will be able to drag

the appropriate lines will stretch to a new position.

2. You can delete a point by just clicking on it with the left button, and hitting the Delete key.

3. If you want to move your object's starting position, drag the first point in the line (at the hot spot), and release the mouse at the new location.

4. You can drag a box around a section of a path and drag it about. You can also use the Cut and Paste options from the menu to edit the path.

Have fun! Before you know it, you'll have created a complex movement pattern for your games.

After you've finished, select "OK" to assign your new pattern to the object.

Static

The static option leaves an object in its present position, solid as a rock. It's used for creating things like the blocks in a rebound game, which don't move, but need to interact with the other objects. If objects are static they take very little time to draw, so you can have plenty of static objects without the game being slowed down too much.

4.2 Editing a movement sequence

Once you've added a movement sequence to your object, you can easily edit it from the Level Editor. Select your object with the right mouse button, and pick the "Edit Movement" option from the resulting menu. The movement dialogue will appear, simply make the changes you require and click on OK.

If you wish to make changes to a path movement sequence, select "Edit Movement", and you'll be presented with the Path Editor as before.

You can now edit your pattern directly from the screen. Any point can be grabbed with the left mouse button, and repositioned as required.

Editing a path

If you want to make more global changes, you can edit whole sections of a movement sequence at a time. Place the mouse over the selected region, and drag a box around it with the left button. When you release this button, your chosen points will flash on the screen. You can now edit your path using the following options from the main Edit menu:

Cut Removes the current section from your pattern, and saves it into memory.

Copy Saves the area into memory without affecting the existing path.

Paste Copies a previous area at the current point in your movement pattern.

Editing a line

To edit a line, move the mouse over one of its points, click once to select it and then hold down the left button to drag the line to a new position.

Editing a point

You can edit an individual point by simply clicking on it with the right mouse button. This will bring up the following options:

Draw line

Stretches a new line between the current point, and the next one in the sequence. You can now drag your line into place with the mouse, and drop it on the screen with a click on the left button.

Record mouse

Starts the mouse recorder from the present position. Hold down the left mouse button to begin, and release it to enter your new path into memory.

Set Pause

Stops your object for the selected time interval.

Set Speed

Changes the speed of your object from this point onwards.

Delete

Erases this point from the path.

Deleting an area

You can delete an area by holding down the left button over the top left corner, and dragging a box around your region. You can now call up the "Delete" option from the Edit menu, or press the Delete key.

Deleting a point

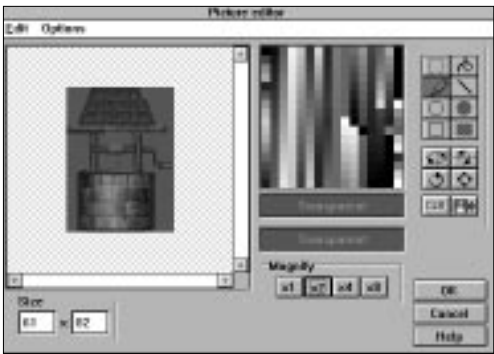
Deleting a point is very simple. Simply select it with the left mouse button, and hit the Delete key from the keyboard. You can also use the "Delete" option from the point's pop-up menu.

4.3 Editing a Backdrop Object

Backdrop objects are ideal for creating backgrounds and obstacles in your games. Klik & Play provides a mouth-watering selection of ready-made backdrops for you to choose from. These can be edited straight from the Level Editor with a simple option from the pop-up menus. Just click on your object with the right mouse button, and select the "Edit Picture" command.

You'll now be presented with the Klik & Play Picture Editor.

The Picture Editor



The Picture Editor is the key to creating terrific graphics in Klik & Play. It comes in several different flavours, each dedicated to drawing a specific type of object. Each version works in the same general way.

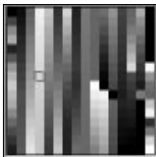
The Image Window



The Image window shows the image you are presently editing. If this image is too large to fit into the window, you will only be able to see a section at a time. You can move through the picture using a set of simple scroll bars.

If you want to do some fine editing work, you can magnify your image using the Zoom icons. These expand the area by two, four, and eight times respectively. The "x1" icon turns off the magnification, and displays your image in its original size.

The Palette Window



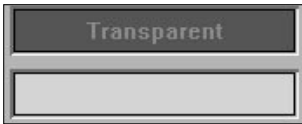
This contains a list of colours which can be chosen for your drawing operations. You can select a colour by clicking on it with the mouse.

The RGB sliders



These are only available if you're running Klik & Play with more than 256 colours. They allow to you mix a colour out of red, green, and blue components.

The Colour bars



The top bar shows the transparent colour. Anything drawn in this colour will be omitted when your image is displayed on the screen. You can click on this button to assign the transparent colour to the mouse. So as you draw, you'll wipe out parts of your image, rather like an eraser.

You can change the transparent colour using the "Choose Transparent Colour" command from the "Options" menu. This will display a menu of all the available colour options. There are sixteen possibilities.

The bottom colour bar shows the colour which will be used for your future drawing operations. As a default, it's set to transparent.

Changing the Size of your Picture

The Size boxes allow you to adjust the dimensions of your picture. The value to the left changes the width, and the one to the right sets the height. You can enter these values by just clicking on them with the mouse, and typing in your new size. The dimensions will only change when you select another icon with the mouse or press the Tab Key.

Drawing an Image

You can draw on your image by simply moving the mouse pointer over the image window, and clicking once on the left mouse button. The precise effect will depend on the current drawing operation. Allowable drawing options include single points, lines, circles, discs, boxes, and bars.

Choosing the colour

You can select the colour in four ways:

- 1. By clicking on a new colour from the palette window.

- 2. By selecting the transparent colour from the colour bar.
- 3. By moving over a point on your image, and grabbing its colour with the right mouse button (Mac: **⌘ Click**).
- 4. Using the RGB sliders to mix up a colour. This option is only available if you're using more than 256 colours, and is only available in the Windows version.

Plotting a point



Plotting a point is easy. Just select the Draw icon, and move the mouse pointer over your image. As you hold down the left mouse button, a point will be drawn in the present colour.

Drawing a line

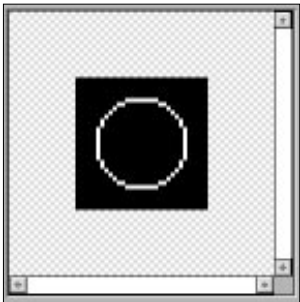


Lines can be drawn between any two points in your image. Simply click on the Line icon, and move the mouse over the selected starting position. Now hold down the left button, and stretch your line in the chosen direction. When you're satisfied, release the button to fix the results into place.

Circles and ellipses



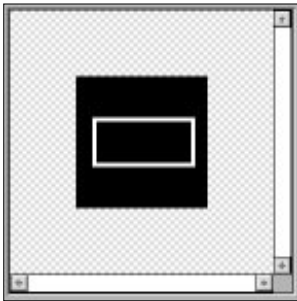
These icons let you create circles and ellipses. When you select them, the pointer will change to a disc. This indicates the centre-point of your new ellipse. Move it over your image, and hold down the left mouse button. You can now drag your ellipse into the required shape. Once you're happy with the results, release the button.



Rectangles and filled Rectangles.



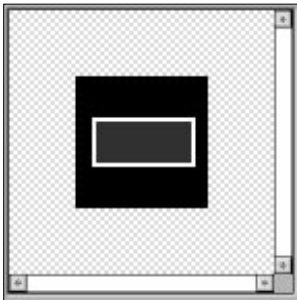
These can be created effortlessly. Just select the appropriate icon, and place the mouse over the top left corner of your new rectangle. Now hold down the left mouse button, and expand or contract your rectangle on the screen. When you release the button, your rectangle will be displayed in the chosen colour.



Filling an area with colour



The Paint-pot icon fills an area with a solid block of colour. The area to be filled should be completely enclosed. If there's a gap, the colour will leak out, and your entire image will be corrupted.



Erasing the image



Click on the CLR icon to wipe your current image off the screen. You'll now be able to start again from scratch.

Flipping the image

These icons flip your images in the selected directions.



Horizontal flip:

Reverses your image from left to right, just like a mirror.



Vertical flip:

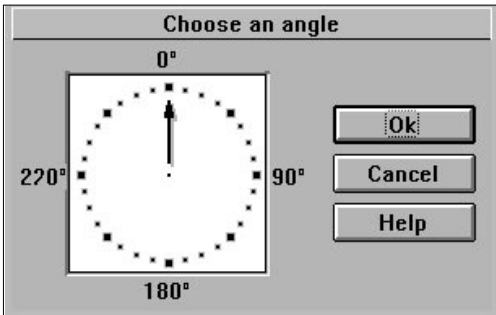
Turns your entire image upside down.



Rotating the image



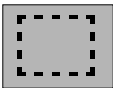
You can turn your image using the Rotate icon.
When it's selected, you'll get the following dialogue box:



The arrow indicates the current direction. You can rotate your image by clicking on a new direction on the clock-face, and selecting "OK". Your object will now be turned to the new orientation.



Cutting and Pasting



The Picture editor lets you move whole sections of your image from one place to another. It's controlled using the "Select area" icon.

This defines a rectangular block which can be cut or copied from your image. When it's selected, you can move the mouse over the top left corner of your block and drag a box around your area. If you make a mistake, click over another part of your image and try again.

Once you've selected a block, you can save it into memory using the "Cut" option from the "Edit" menu. The original section will be replaced with a block of the transparent colour.

You can also use the "Copy" option. This will store your selected region in memory, without affecting the current image.

After you've grabbed your area, you can now copy it onto the image using the "Paste" command. This provides you with a rectangular box which can be used to position your block over the image. You can fix it into place with a single click of the left mouse button.

Moving a block

Klik & Play gives you a fast way of moving a block around your image. Select the block using the "Select area" icon. Then select the block and drag it around. When you release the left button and click elsewhere, the block will be pasted in the new position.

Shrinking an image

The shrink option removes any unnecessary transparent border areas from your image, reducing its size.

Importing an image

Loads your image from the disc in one of a number of formats. We'll be discussing this system in detail in Section 4.11. But for the time being, here are a few instructions to get you started:



Click on the "Import" icon.

Select your image from the disk using the file selector provided.

Click on the top left corner of the area you want to grab with the left mouse button.

Hold this button down, and drag a box around the region you wish to import.

Release the left button to grab your area into the current image. Any existing contents will be replaced.

4.4 Editing Active Objects

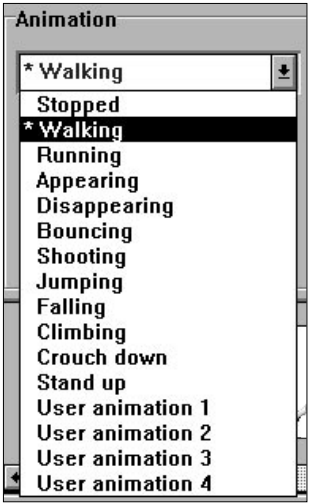
Active objects can be made up of many animation sequences, from Walking to Jumping to Disappearing. Objects can range in their animation possibilities - it really depends how they were originally designed. To make changes to an object's animation you have to call up the very powerful animation editor. Just click on your object with the right mouse button and select "Edit Animations...".

You'll now be presented with a powerful Animation Editor, which provides you with everything you'll need to generate professional animation sequences for your games.

The Animation Editor



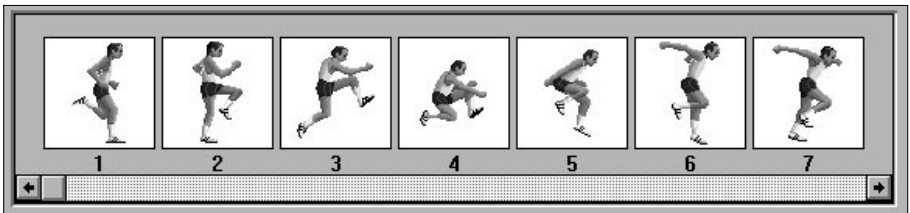
Klik & Play allows you to assign up to sixteen named animation sequences to each of your objects. You can choose the animation using an on-screen menu. This displays a full list of the available types on the screen. If a sequence has been defined, you'll see a small star to the left of the name. You can also use the cursor arrows to scroll through the list directly from the keyboard. Once you've made your selection, your animation sequence will be shown in the frame list, ready for immediate editing.



User defined animations

Klik & Play comes with a ready prepared list of animation types for common activities such as standing, walking, running around, or disappearing. You can also define up to four custom animations for your own use. Simply choose one of the "User animation" type from the selector, and click on the "Change animation name" button. You'll now be able to enter a new name for the animation, which will be saved automatically along with your game.

The Animation area



This is a small panel divided into rectangular "frames". Each frame holds a single picture which will be shown in the animation. When the object appears in your game, these frames will be drawn one after another to generate a smooth illusion of movement.

The Animation Editor places each frame in its own small box. If your image is larger than this box, it will be reduced to fit onto the screen. Below the animation area, there's a standard scroll bar. You can use it to slide the window through the entire sequence.

Images can be copied by dragging them to a new location with the left mouse button. After you release the button, your chosen image will be duplicated at the new position, inserting itself and shifting all the frames to the right by one frame.

As with objects, each frame has a pop-up menu which can be selected with the right mouse button (Mac: **⌘ Click**).

Edit Frame

Calls the Picture Editor to edit the image
Section 4.4 for more details.

Insert

Inserts an exact copy of the current frame at this position and shifts all the frames to the right by one frame.

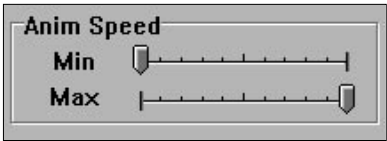
Resize Zoom

Changes the size of your object using a smooth animation sequence.
See later.

Delete

Erases the current image completely. Any frames to the right of this image will automatically be moved one place to the left.

Setting the Animation Speed



There are two ways of doing this, depending on the type of your animation.

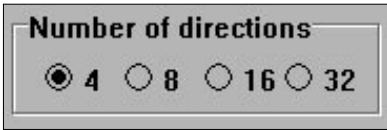
The "Stopped", "Appearing", "Disappearing", and "Shooting" animations display your frames at a steady speed. So when you select them, you'll be presented with a single slider bar which sets the animation rate. Moving the slider to the right will speed your animation up. Shifting it to the left will slow things down.

Other animations use a different system. They vary the animation rate according to the speed of your object on the screen. You'll now have two sliders to play around with:

- Min:** Enters the animation rate to be used when the object is moving at its slowest pace.
- Max:** Sets the rate which will be used when your object is moving at its fastest possible speed.

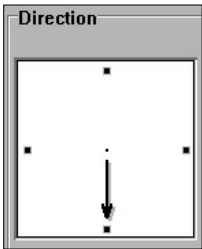
If the object's speed lies somewhere in between, Klik & Play will automatically adjust the animation rate to keep in step. Supposing you've defined a sequence for a walking character. You can use this feature to make his legs move faster as he increases speed.

Number of directions



The direction buttons control the number of angles you can turn an object on the screen. Each direction can have its own optional animation effect. To make life easy for you, Klik & Play will generate the entire rotation sequence. Just select the "Rotate" icon on the control panel and watch it go.

If you want to edit your objects manually, you can change the current direction by clicking on one of the points in the direction window. The presently selected direction is shown by an arrow.



Note that the animation effect looks smoother as you extend the number of directions. But since each direction needs its own animation, the memory requirements increase dramatically.

The direction of an object is linked to the way it moves. Take for example an overhead view of a race car like this:



If we set the number of directions to 32 and rotate this image through all 32 directions, it can now be "driven" around using the Race Car movement. If the car was moved using Mouse movement it would "drive" around the screen following your mouse movements.

If you were animating a walking man, you would most likely set-up animations of him walking left, right, up and down. So you wouldn't need 32 directions, just 4. We advise you to look at the animations of all the supplied objects, you'll learn how best to set-up objects depending on their required purpose.

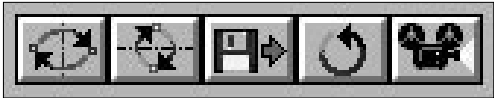
Repeat



Repeat enters the number of times your animation will be displayed on the screen. You can adjust it using a simple slider, or by typing in a new value from the keyboard. If the repeat count is set to zero, the animation will loop continuously. The value will be changed to "looping" to reflect this.

Loop back to frame: chooses the frame number to return to after the animation reaches the end of the sequence. It's normally set to the first frame, but you can change it to create an "intro sequence" which will be displayed once at the start of your animation.

The Command Icons



These icons control the various features of the Animation Editor. Each option affects the entire sequence of images. So you need to use them with a little care.



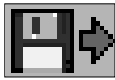
Horizontal flip

Reverses all the images from left to right, just like a mirror. Great for turning your characters to face the opposite direction.



Vertical flip

Flips the entire animation sequence upside down. Useful for things like spaceships, which need to change course during the game.



Import

Grabs a series of pictures from the disk and loads them into your animation sequence. Your images can be stored in either PCX, LBM, GIF, BMP or PICT (Mac only). You can also import FLI or FLC animation files as well.

Generally, the import system works in "Box" mode. This allows you to grab a whole series of objects in a single operation. Each frame of your image should be drawn with a rectangular border around them. Klik & Play will now be able to grab and separate the animation sequence straight from the picture.

Mac users: To access this box mode press **⌘** when you click in the picture

WARNING! When you're creating your images, it's vital to make sure that they use the same colour scheme as Klik & Play. Otherwise you could get some odd effects when the frames are remapped to Klik & Play's own palette. Also note that the new animation will replace any existing frames in the animation. If you'd prefer to insert your images into an existing sequence, you can turn this feature off using the "Replace mode" option from the "Edit" menu.

See Section 2.0 for a full explanation.



Rotate: This option automatically defines the animation sequences needed to turn your object through every conceivable direction. Not unnaturally, it can consume vast amounts of memory, especially if you've specified 16 or 32 directions. But it's great for defining things like race-car objects which need to have a different animation for each direction.



View: Click on this icon to see how the finished animation will appear in your game. Click again to remove it from the screen if the animation is looping.

The Edit Menu

The Edit menu allows you to copy your images between frames. It can also copy whole sequences from one animation to another. So you can re-use the same set of images


several times, changing their speed or orientation to generate a completely new effect. The Edit commands are called from the menu bar at the top of the animation editor. Before you use these options, you'll need to select some images. You can highlight a single image by just clicking on it with the left mouse button. If you want to edit several images, you simply hold down the Ctrl (Control) key, and select each frame in turn. If your images are off screen, use the scroll bar to move them into view.

Cut Removes the chosen frames from your animation, and grabs them into a safe area of memory.

Copy Copies your frames into memory without affecting the current animation.

Paste Pastes a previously saved memory area back into the animation. Select the type of your animation, click on "Paste", and move the mouse over the destination frame. You can now click on the left button to insert your frames into the animation. If replace mode has been set, any existing frames will be overwritten.



These next options are only selectable by pressing  click when pointing at an animation frame

Delete Erases all the selected frames from the animation.

Select all Highlights the entire animation sequence in a single operation.

Unselect De-selects any highlighted frames.

Replace Toggles replace mode. If it's on, anything you paste onto the animation will completely erase the present contents. When it's off, frames will be inserted.

Here's an example of how you might use the Edit menu's commands:

Imagine you've designed a man that walks right. You want to have the same animation for him walking left. This can be achieved very quickly:

1. Choose the "Select all" command from the Edit menu.
2. Select "Copy"
3. Click on the left direction box.
4. Select "Paste" and click on the first empty frame.
5. Now click on the "Reverse Horizontally" icon.

The object now has a left and right animation, much quicker than creating the left walking animation from scratch.

Editing a frame of the animation

Any single frame can be edited by either double clicking on its image, or selecting the "Edit frame" option from the pop-up menu (press the right hand mouse button when over a frame). You'll now be presented with a standard picture editor which can be used to draw your images.



This is basically the same as the picture editor used to edit backdrop objects. So we'll limit ourselves here to a quick summary of the various features:

The Drawing icons

Chooses the drawing operation to be performed. Available options include: select area, draw, line, ellipse, filled ellipse, rectangle, filled rectangle, and fill. When over the image, the mouse will change shape to reflect the selected option.

The Image icons

Let you flip, rotate, shrink, clear and import a new image.

The Object window

Contains the image you are presently editing. You can draw on the screen by simply clicking on the selected point with the left mouse button. The right button provides a quick way of selecting the colour. It grabs the colour you are currently pointing at from the image and assigns it to the pointer. If you want to move in closer, you can change the scale using the Magnify icons.

The Palette

Picks the drawing colour. If you're using more than 256 colours, you can also mix up a specific shade with the RGB slider bars.

The Frame arrows

Moves to the next or previous frame in the animation sequence. The image you've just been editing will be preserved

The Hot Spot

Sets the Hot Spot of the image.

The Action Point

Fixes the Action point of the image.

The Size Changes the size of your image. Small ones are fastest.

Setting the Hot Spot of an Object

The Hot Spot is an invisible handle used to drag your images around on the screen. It's used as a reference point for the X,Y co-ordinates of your object. Each image can have its own separate hot-spot. As a default, when you create a new active object the hot spot is automatically positioned at the top left corner of each image. However, you can actually move it anywhere you like. So a character in a platform game might have the hot spot near its feet, and an attacking alien might have a hot spot at its centre.

You can move the hot spot by clicking on the Show Hot Spot option from the Picture Editor. A cross-hair will now appear in the image window. When you move the mouse over the hot spot position, the cursor will change to an arrow. You can now drag the hot spot to a new position with the left button, or type in the co-ordinates over the existing values.

Setting the Action Point of an Object

This is the point on the image where an action will occur. It's typically used for things like bullets, which need to be released from a specific part of the object, such as a gun. Each frame of an animation can have a different action point. So as the gun moves, the firing point can change as well.

When you select this option, a cross-hair will appear in the image window indicating the current position of the action point. You can use it to drag the action point to a new position. You can also enter the X and Y co-ordinates directly from the keyboard using the boxes provided.

Note that you can't display the hot spot and the action point on the screen together. Only a single option can be changed at a time.

It's also possible to set the Hot Spot and Action Points using the numeric keypad. We've mapped out the most frequently used positions like this:

7 Top Left	8 Top Centre	9 Top Right
4 Middle Left	5 Centre	6 Middle Right
1 Bottom Left	2 Bottom Centre	3 Bottom Right

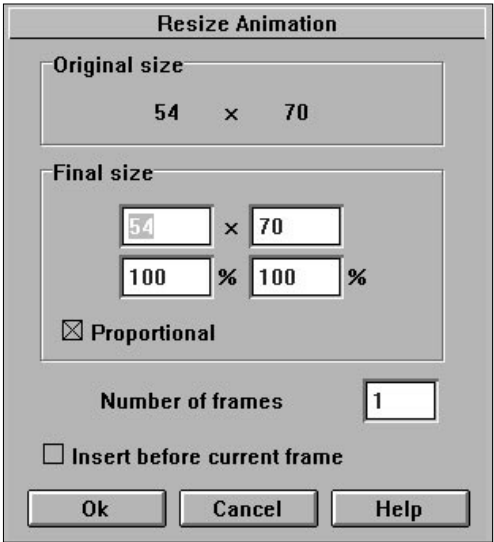
Ensure that the Num Lock is on when you use these quick keys. Mac users must press **⌘** key with the numeric key.

Creating a Resize or Zoom sequence

Klik & Play lets you take an image, and change its size in a series of steps. So you can gradually shrink a bad guy into the distance, or enlarge a game-over message to fill the screen.

The re-size option is called up from the image's pop-up menu. This appears when you click on an image with the right mouse button (Mac: **⌘ Click**).

Once it's selected, you'll get the following control panel.



“Original size” shows the width and height of your current object.

“Final size” sets the new size of your object in each dimension. You can enter the width and height directly, or as percentage of the original size.

The “Proportional” option ensures that the shape of the object will remain the same as the size changes. If it’s set, you’ll only need to change a single dimension at a time. The other will be calculated automatically to keep the object in its existing proportions. If the “Proportional” system is turned off, you’ll be able to squeeze or stretch your images in any direction.

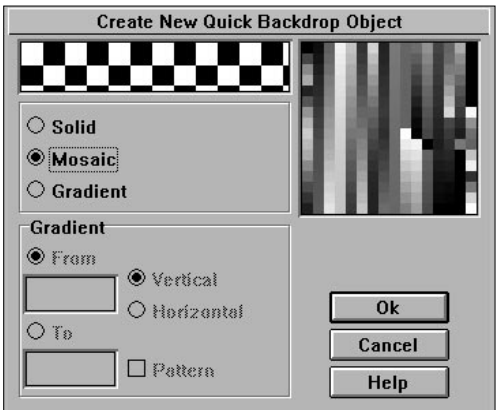
“Number of frames” enters the number of images which will be created for your re-size sequence. The more frames you use, the smoother the effect, and the greater the memory requirements.

“Insert before current frame” places the finished sequence before the frame you clicked on to access Resize Zoom. The frames will be created from right to left. If this check box is off, the animation will be created from left to right and after the current frame.

4.5 Editing a Quick Backdrop Object

Quick Backdrop objects provide a simple way of generating attractive backgrounds for your games, without consuming valuable memory. They can be edited by selecting the "Edit Backdrop..." option from their pop-up menu.

You'll now see the following dialogue box:



The sample box holds a small area of your new image, so you can see how it will look on the screen.



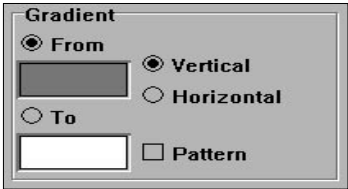
The option buttons



These select a fill pattern for your object. There are three possibilities:

- Solid:** Generates a smooth block of colour. You can choose this colour by simply clicking on one of the shades in the palette window. If you're using more than 256 colours, you'll be able to set the shade directly using the RGB sliders. Your new colour will now be displayed in the sample box.
- Mosaic:** This will create an interesting tile effect, similar to Windows wallpaper/Macintosh desktop patterns. When you click on Mosaic, you'll be prompted to design a tile for your object using the Picture Editor. This tile will now be used as a fill pattern, and will be repeated throughout your object. You'll see an example in the sample box.

Gradient: The gradient option lets you create attractive sky-lines or seascapes. It's also good for generating 3D cylinders or tubes. It displays your backdrop as a smooth wash of colour. Klik & Play takes two colour values, and gradually varies them to produce your finished pattern. The result is calculated automatically by Klik & Play, and depends on the number of colours between the two values, the gradient direction, and the size of your object.



From: Enters the first colour in your gradient. Use the palette window to select the shade.

To: Click on this button to set the last colour in the gradient. The colour should be chosen from the palette window as before.

Horizontal:
Changes the colours from left to right.

Vertical: Adjusts the colours from top to bottom.

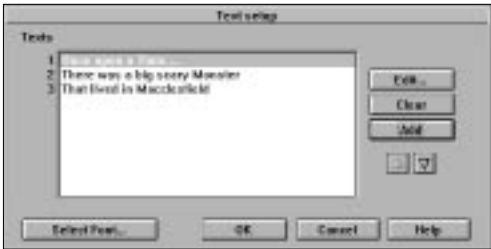
Pattern: Adds a "dither pattern" to the effect. This smoothes out the result.

As you make your changes, Klik & Play will show a small example of the gradient in the sample window. You may need to experiment a little to create the effect you want.

4.6: Editing a Text object

Text objects are ideal for generating various messages and title screens for games. They can be edited by selecting them with the right mouse button, and choosing the "Edit Text..." option from the resulting menu.

A dialogue box will now be displayed:



The Paragraph Window

Holds a list of paragraphs which have been assigned to your text object. You can edit this text by double clicking on a particular line of text with the left mouse button.

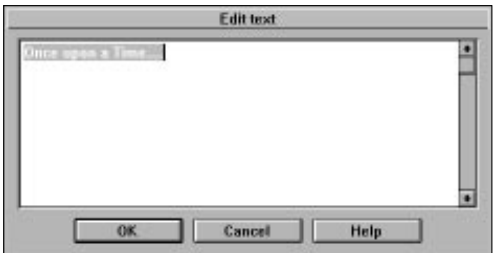
Normally, only the first paragraph will be displayed on the screen. But you can replace this paragraph with an alternative paragraph using a simple action from your game. So a "Game Over" message might display either "Congratulations" or "Bad luck" depending on the result of the game. This is explained at the end of this chapter.

Also note that the items are displayed in a standard format, no matter which font style you've selected. You will see the effects when you return to the Level Editor.

The Edit Text Commands

The Edit... button.

Click this button to edit the currently highlighted text. A window will open up to allow you to type in your changes. Alter the text as required, and then click on 'OK'.



You can now move around the text using the normal cursor keys. When you're happy with the results, hit the Return key. Pressing Control and Return allows you to split lines within a paragraph.

The Clear button

This erases the present line, leaving it totally blank.

The Add button

Adds a new line of text to your object.

The arrow icons.

Move a highlighted line up and down through the message window.



Selecting the font

The "Select font..."

Button defines the appearance of your text on the screen. Klik & Play lets you display the text in any of the available TrueType fonts. These fonts can be chosen from the following selector:



- Font:** Enters the name of your font. You can type the name into the box, or the font can be chosen directly from the font list.
- Style:** Selects the style of your text. You can display your text in Regular, Bold, Italic, or Bold Italic.
- Size:** Sets the size of your characters in "points". Each point is 1/72 of an inch high.
- Colour:** Chooses the colour of your message using a menu. There are sixteen possible colours.
- Effects:** Adds a strike-out or underline effect to your text.



Note that if you select a non-standard font, and try to run your game on a machine which doesn't have it, the nearest equivalent will be used instead.



The Mac font selector is very similar but does not offer Strike-out.

Changing the text colour

You can choose the text colour in two ways.

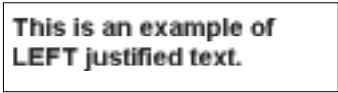
1. Call up the Font Selector from the "Edit Text..." command, and click on the "Colour" menu.
2. Use a separate "Colour..." option from your object's pop-up menu.

Changing the display format

Klik & Play allows you to display your text in a number of different formats. You can choose between them using an "Alignment" option from your object's pop-up menu.

There are three possibilities:

Left Displays the text just as you typed it, from left to right.



Centred Neatly centres the text in its window.

This is an example of text
which has been
CENTERED.

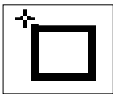
Right Moves your text so that the last character is at the right hand corner of the window.

This is an example of
RIGHT justified text.



Make Invisible

When you select this option your text object will disappear and will be replaced with a small icon. The purpose of Make Invisible is to allow you to display text only when a specific event occurs, it will not appear throughout the entire game.



New Text Object

This option allows you to copy a block of text and paste it onto the play area wherever desired. When you select this option your text will be replaced by a small icon. Use this icon to position your text object.

4.7: Editing a Question object

Question objects provide a simple way to add multiple choice questions to your games. You can also use them to receive player's commands.

Changing a Question Object is easy. You just call the "Edit Question Object..." option from the pop-up menu, and edit the object on the screen.



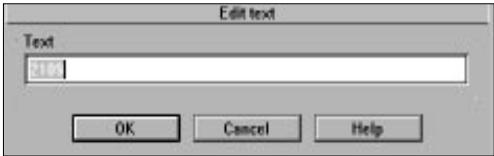
Changing the Question

You can change the question by moving the pointer over the Question box, clicking on the left mouse button, and typing in your new text. It's that simple.



Editing the answers

You can edit an answer by just double clicking on the text. A dialogue box will be displayed allowing you to make your changes. When you're satisfied, click on "OK" to assign the text to your new object.



The Editing buttons



Edit Changes the currently selected answer. You'll be presented with a dialogue box to edit your text.

Add Adds a new answer to the list. The Edit text dialogue box will be called automatically so you can enter your answer. Each question can have a maximum of five answers.

Delete Removes a highlighted answer from the list.

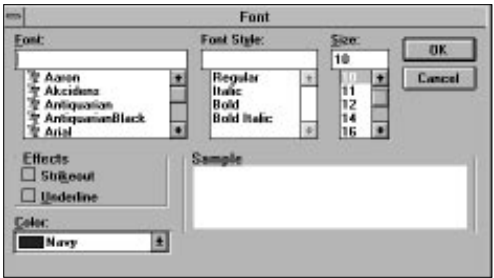


The arrow icons move the currently selected answer through the list. Before using these icons, you should click on an answer with the mouse. Otherwise they'll have no effect.

Selecting the font

You can change the appearance of the Question and Answer text independently, using two "Select Font..." buttons.

These bring up a font selection box.



- Font:** Lets you choose a TrueType font for your text
- Style:** Allows you to display your text in Regular, Italic, Bold or Bold Italic.
- Size:** Enters the height of your text in "points".
- Colour:** Selects the colour of your text.

Choosing the Colours

You can change the colour of your question and answer texts in two ways.

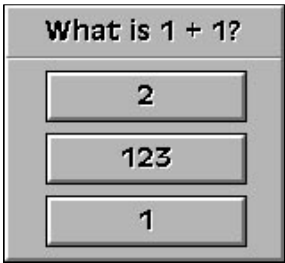
1. Call up the appropriate "Select Font..." option, and select the "Colour" menu.
2. From the "Colour..." option from your object's pop-up menu. Choose "Question" and "Answers" to set the required colour.

Setting the correct answer

The "Radio Buttons" to the right of the Answer Window select the correct answer to your question. Just click on a button, and the appropriate answer will be entered as correct.

Setting a relief effect

The Relief options add a simple 3D effect to your text. Here's how it looks on the screen:



4.8: Editing a Score object

Score objects provide a visible read-out of the player's score. They can be changed using a simple option from their pop-up menus. Just click on the object with the right button, and select "Edit Score...". A number editor will be displayed.

The Number Editor



As you can see, this is very similar to a section of the Animation editor. The score is generated using a series of digits from "0" to "9". Each digit is held as a separate frame, just like an animation. You can edit a digit by either double clicking on its image, or holding down the right button, and selecting "Edit Frame" from the pop-up menu. You'll now be presented with the Klik & Play Picture Editor. See section 1.2 for more details.

Using a TrueType font for the score.



To make life easy, you can generate all ten digits automatically from a TrueType font. Click on the "Import new font..." Icon, and choose your font from the selection window. When you have finished, select "OK". The digits will now be grabbed from the font, and loaded into the Score Editor, ready for subsequent editing.

Viewing the effect



Click on the "View" Icon to see the digits increasing, as they would during a game.

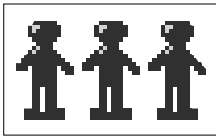
Importing some digits.



The "Import Picture option" lets you grab your digits directly from the disk. Each digit should be enclosed in a rectangular box. This will allow the capture system to enter all ten numbers straight into memory. See Section 4.11.

4.9: Editing a Lives object

These objects provide a visible display of the number of the player's lives. When they are first created, they will look like this:



You can add in your own effects by selecting "Edit Lives..." option from the object's pop-up menu.

This will bring up the following dialogue box:



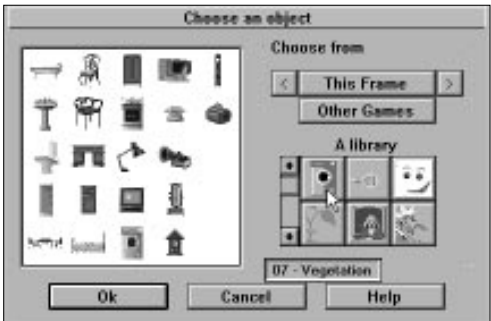
The "Display as" menu chooses how your lives will be shown on the screen.

Picture Displays each life as a separate image. When it's selected, you'll be presented with a Picture Editor which can be used to draw your object on the screen. See Section 1.2 for more information.

Numbers Displays your remaining lives as a simple number. The appearance of this number can be defined using the Number editor we explained in the "Editing Score" chapter.

Pick image from object

Picks an image from a library, and assigns it to your lives object.



The Library selector

Lets you choose a library containing your image. You can scan through the available libraries using the scroll bars to the left of the box.

The selection window

Contains all the images assigned to the current library. These images can be selected by clicking on their icons.

Edit

This button edits your current lives object, calling up the appropriate editor as required.

Changing the display arrangement of your lives

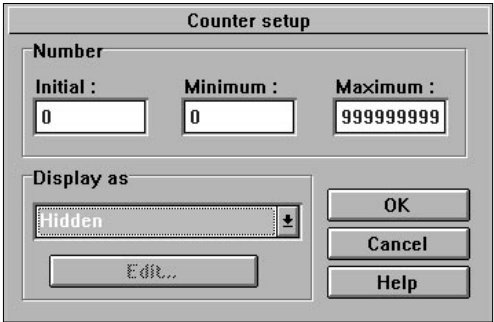
Normally, your lives will be displayed in an invisible window. This window appears whenever you select a lives object with the mouse. By dragging it with the left button, you can rearrange your lives on the screen. You can use this feature to display the objects in a vertical column rather than a horizontal row.

4.10 Editing a Counter Object

As a default, counter objects are completely hidden from the player. But they can also be displayed directly on the screen, to create things like fuel gauges and temperature read-outs.

You can set these effects using the "Edit Counter..." option from your object's pop-up menu.

This displays a useful little dialogue box on the screen:



Initial: Sets the initial contents of your counter.

Minimum: Specifies the smallest possible value.

Maximum:
Enters the largest value the counter can reach.

Display: Selects the display option from a menu. As a default, it's set to "Hidden". So your counter will be invisible.

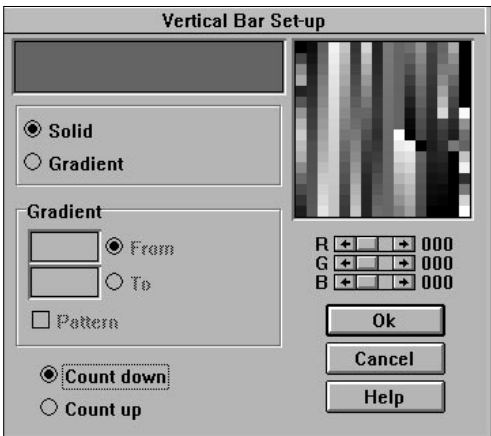
Displaying your counter as a number

The "Numbers" option shows the counter as a number. Selecting this option will bring up the Number Editor we explained in Chapter 4.8 - Editing a Score Object. You can use it to choose a new text style for your counter.

Displaying your counter as a vertical bar

The "Vertical Bar" option displays your counter as a vertical strip. The scale is worked out automatically depending on the minimum and maximum values you've previously set.

You can draw the bar using the following editor.



This is very similar to the Quick Backdrop Editor. The only real difference, is that the Mosaic option is no longer available

Solid: Fills the bar with a solid block of colour chosen from the Palette window. If you're using more than 256 colours, you can mix the shade with the RGB sliders.

Gradient: Divides the bar into horizontal strips, each with a different colour. The colours are chosen using the "From" and "To" buttons.

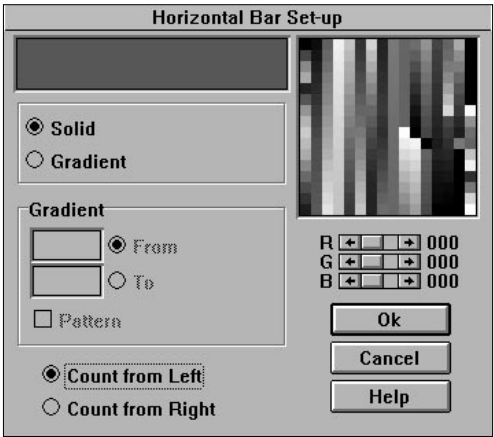
Pattern: Smooths the gradient effect by overlaying it with a neat cross-hatch pattern.

Count down:
The bar will increase down the screen whenever it is increased during the game.

Count up: The counter will grow the bar upwards as it is increased.

Displaying your counter as a Horizontal bar

If the "Horizontal Bar" option is chosen the following dialogue box will appear:



As you can see, this is almost identical to one used by vertical bars. There are only a few changes.

Gradient: Modifies the colour from left to right depending on the settings of "From" and "To".

Count from Left:
Begins the bar from the left and increases to the right.

Count from right:
Displays the bar from the right and counts to the left.

Setting an Animation sequence

The "Animation" option allows you to assign a fancy animation sequence to your counter. Selecting it will bring up a standard Animation Editor which can be used to define your sequence. See Section 4.4 for full details.

The Animation will start from the first frame, and progress as the counter increases. The size of each step will be worked out by Klik & Play, depending on your minimum and maximum values.

4.11 Creating new objects

Klik & Play comes with a wide selection of objects on disk, which should be suitable for most situations. However, at times you may find it necessary to define additional objects by hand, and to do this it is necessary to use the "Toolbar".

The Tool bar

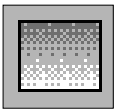
The Toolbar consists of a group of icons which allow you to create new objects for your games. You can use it to add fancy messages, design your game's scoring system, and ask the user questions.

You can access these features by simply clicking on the "Tools" icon from the Level Editor. If you're not in the Level Editor, call the "Goto Level Editor" option from the "Game" menu before proceeding.

The following icons will appear:

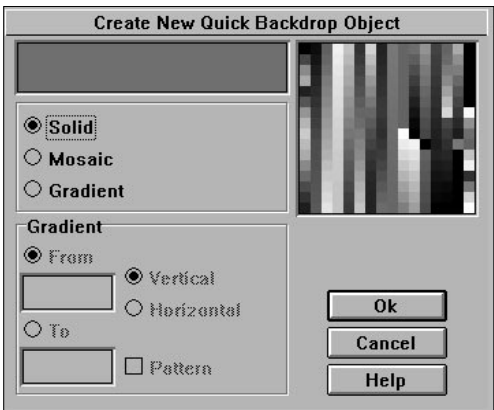


Creating a Quick Backdrop Object



Creates a New Quick Backdrop Object. When it's selected, you will see the following screen.

There's a full explanation of these options in Section 4.5



Here's a quick summary of the various features:

The Palette Window

Selects a colour for your object.

The Sample box

Displays the current effect.

Solid Draws your object using a solid block of colour.

Mosaic Creates your object out of a group of tiles, just like Windows Wall-paper/Macintosh desktop patterns.

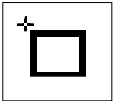
Gradient Generates an attractive gradient effect.

So how do we create one of these quick backdrop objects?

Enter the Level Editor, and click on "Tools" to bring up the toolbar. Select the first icon, and click on the left mouse button. You'll now be presented with the Quick Backdrop Editor.

In the top right hand corner you will find a series of coloured blocks arranged in a square. This is the Palette window, and it's used to choose a colour for your object. Move the mouse over one of the colours, and press the left mouse button. The colour you've selected will appear in the Sample box.

You've now done everything you need to create a simple backdrop. So you can return to the Level Editor by clicking on the "OK" button.



The next task is to place the new object onto the play area. Whenever Klik & Play creates an object, it enters a special insertion mode. The pointer will change shape to reflect this.

You can now position this pointer over the play area, and click on the left button to drop your object into place.

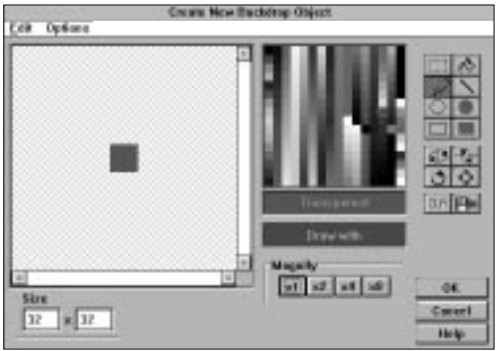
It is possible to move these objects at any time by simply selecting them with the mouse, and holding down the left button. Your object will now be assigned to the pointer, allowing you to drag it to a new location as required.

As a default, all Quick Backdrop objects are created in a standard size. You can adjust their size by clicking on your object, and selecting one of the square control points along its borders. Each point stretches the object in a particular direction. Just hold down the left mouse button, and drag the box into the new shape that you desire. When you release the button, the backdrop will be re drawn in your chosen size.

Creating a Backdrop object



This option creates a new backdrop object for your games. You can draw these backdrops using a powerful Klik & Play Picture Editor. See Section 4.3.



The Editor works as follows:

Select the "Tools" button from the Level Editor to display the toolbar, and click on the "Create New Backdrop Object" icon to call up the Picture Editor.

When it's first selected, the Picture Editor shows your object in its actual size. This is too small for fine drawing work, so you should click on the "x4" icon to zoom in closer. Initially, the image will be filled with the transparent colour (grey). So you will see it as a grey block.

We'll now have a go at drawing one of these objects for ourselves.

Begin by choosing a colour from the Palette window. Just click on a colour with the mouse, and it will be assigned to the pointer. A sample box will show the colour you selected.

Next, you'll need to choose a drawing operation. Place the pointer over the filled ellipse icon, and select it with the mouse.

Now move over to the centre of your image, and hold down the left button. As you drag the mouse downwards your disk will expand on the screen. When you're happy with the result, release the mouse button, and return to the Level Editor by selecting "OK".

Your new image will be assigned to the mouse, and you can drop it into position with a single click of the left button. A copy will now appear on the object shelf, ready for future use

Creating an Active object



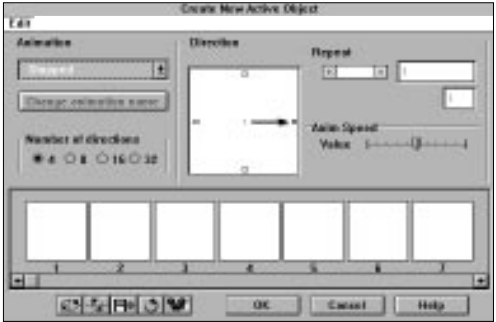
Active objects can be created with ease. You simply click on the appropriate icon from the Toolbar, and draw your animation using the Animation Editor.

You can find a detailed explanation in Section 4.4.

This is how it works:

Enter the Level Editor, and select the "Create New Active Object" icon from the toolbar. It is the third icon from the left.

The Animation Editor will be displayed.



Your first task, is to choose an animation type for your object. Klik & Play lets you assign up to sixteen animations to any active object. At the beginning, the animation is set to "Stopped". Click on "Stopped", and move the mouse down through the resulting menu, until you've highlighted "Appearing".

The animation is divided up into small boxes called "frames". Each frame can contain a single image in your sequence. When you are starting out, all the frames are empty. We will now create a new image for one of these frames.

Select the first frame in the animation sequence with the right mouse button, and choose the "Edit Frame" option. You'll be presented with the Picture Editor as before.

If the object seems small, click on the "x4" icon to expand it into view. You can now select a colour for your object. Move the mouse over the Palette window, and click on the colour of your choice.

The next step is to draw your object on the screen. Let's generate a simple bar.

Place the mouse over the filled rectangle icon, and select it with the left button. Move the pointer over the top left corner of your image, and hold down the left mouse button. You can now expand your box onto the screen by dragging the mouse downwards and to the right. When it completely fills the image, release the button to lock it into place. If you make a mistake, erase the picture using the "CLR" button, and try again.

Click on "OK" to return to the Animation Editor.

The new bar will be displayed as the first frame of your animation. We could repeat this process to edit all the subsequent frames in the sequence. But since this would take a little time, we will use the "Resize Zoom" feature. This is one of the most powerful options of the Animation Editor, it creates an entire animation sequence out of a single image!

Move the mouse over the frame containing your bar, and click on the right mouse button to get the pop-up menu (Mac: **⌘ click**). Now select the "Resize Zoom" option.

A dialogue box will be displayed:

Resize Animation

Original size

32 × 32

Final size

32

 ×

32

100

 %

100

 %

☒ Proportional

Number of frames

1

☐ Insert before current frame

Ok

Cancel

Help

Click on the "100" near the "Final size" box, and hit the backspace to delete it. Enter a value of 400 to increase your object by a factor of four hundred percent. Next, you'll need to enter the number of steps for the re-size sequence. Select the "Number of frames" box, and replace the "1" with a "10". Click on "OK" when you've finished.



Klik & Play will now take your image, and gradually expand it to four times its original size. You can check out the effect by selecting the "View animation" icon.

Select "OK" to return to the Level Editor. Finally, position your object on the play area with a single click on the left button.

Creating a Text Object



This icon allows you to display a simple message over the playing area.

You can find a detailed explanation of these objects in Section 4.6.

Here's a quick example:

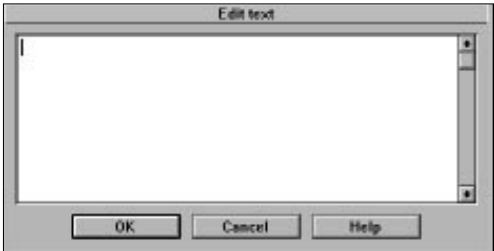
Click on the toolbar, and select the "Create New Text Object" icon.

The following dialogue box will be displayed:



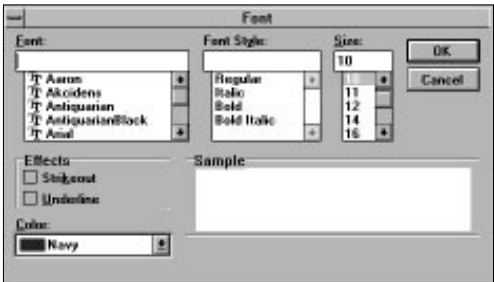
To the left, there's a large window for your text. Each text object can contain a whole list of paragraphs, ready for instant use.

Double click on the first item in this window, or select the "Edit" button from the panel. You'll now be presented with a dialogue box to enter your message.



Type in some text, and assign it to your object by selecting "OK". It will immediately appear in the first line of the text window.

Just to make life interesting, we'll display our message in a new font. Click on the "Select Font..." button to bring up a standard font selector.



The "Font" menu chooses the typeface from a menu. Select the font called "Arial". An example of your new font will be shown in the sample box.

Once you've selected your font, you can set the text style. Move the pointer over the menu and choose the "Italic" option.

You can also change the size of the text. Try calling up the size menu, and entering a value of fourteen.

Finally, let's select the colour of our text. Klik & Play gives you sixteen possible colours to choose from. Click on the colour menu, and select a colour of your choice.

Now you've defined some text effects, click on the "OK" button to return to the Text box. For the moment nothing seems to have changed. You'll only see the results when you display your messages on the screen. Select "OK", and position your text over the play area, locking it into place with the left button. Your new text will now be displayed using the chosen settings.

It should look something like this:



Creating a Question Object

Klik & Play has all the answers when it comes to games creation! This type of object allows you to display multiple choice questions during a game - great for educational and adventure games.

Question objects let you to ask a question, and check for an answer from the user. You can then test this answer, and perform an appropriate action in your game.

We'll now create a simple Question and Answer object for you to play around with:



Enter the Level Editor, and call up toolbar using the "Tools" icon. Click on the "Create New Question Object" icon.

You'll be presented with the following screen:

A screenshot of a dialog box titled "Create New Question Object". It has a "Question" section with a text input field and a "Select Font..." button. Below that is an "Answers" section with a "Multiple choice answers" list (1-5) and a "Correct Answer?" section with radio buttons and "Edit...", "Delete", and "Add" buttons. At the bottom are "OK", "Cancel", and "Help" buttons.

At the top, there is a blank line, in which to enter your question. You can type this directly from the keyboard. For our example, enter the line:

What do you get when you multiply six by nine?

It's a simple enough question. Let's add in a few answers.

Click on the "ADD" button to enter a new answer. Type "Fifty-Four" into the resulting box, and select "OK" to assign it to your object.

Repeat this procedure twice, adding the lines:

"Forty-Two", and "Fifty"

Now you've set up the question, all that's remaining is to tell Klik & Play which answer is correct. Alongside the answer window, there's a row of circular "Radio buttons". Click on the one near "Fifty-Four" to enter this as the right answer.

When you've finished, select "OK" to return to the Level Editor. Move your object on the play area and click on the mouse to fix it into position. Here's what your object should look like:



In a real game, you'd also need to assign an action to this object, so that it would respond to the player's commands. See Section 5.0 for more information.

Creating a Score Object



If you want to display the player's score, you will require the feature "Create New Score Object". Score objects automatically keep track of the player's progress, and show a running total on the screen.

See Section 4.8 for full details.

Adding a score object is simple. Here's a quick example:

Enter the Level Editor, and call up the toolbar using the "Tools" button. Now select the "Create a New Score Object" icon.

The pointer will change to insertion mode, and can be moved over the play area to your chosen position. When you click on the left mouse button, a "0" will be displayed. This is the current score. Since you've yet to play a game, it's set to zero.

Creating a Lives Object



Lives objects show the number of "lives" remaining to the player.

We'll be talking about these objects in detail in Section 4.9. For now, let's create a simple lives object as an example.

Enter the Level Editor, and select the toolbar with the "Tools" button. Click on the "Create New Lives Object" icon to add a new lives object to your level.

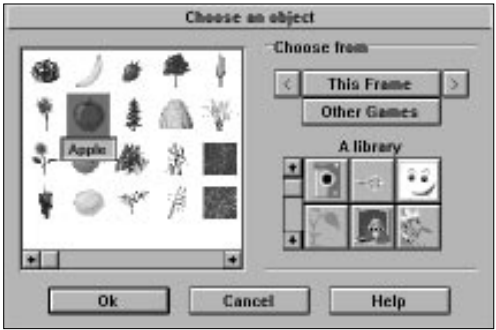
The pointer will be replaced with a small picture of a man. This is the default image used for the lives. Move the man over the play area, and click on the left mouse button to drop it into place. The object will now expand to show the current number of lives (three).

As you can see, the default image is rather dull. So we'll immediately change it for something more interesting.

Select the lives object with the right mouse button, and highlight the "Edit lives..." option from the resulting menu. This will bring up the following screen.



The option you're looking for, is in the "Display As" menu. Move the mouse over this menu, and highlight "Pick image from Object". Here's what you'll see:



To the left, there's a box holding a list of the available images from the current level. On the right, there is a list of library icons, which can be moved into view with the scroll-bar.

Click on the scroll-bar to shift down through the list, when you get to the "Vegetation" library click on it. A list of images will now appear in the selection window. Move the mouse over the apple, and highlight it with the left button. Finally, click on "OK" to grab the apple for your lives object. You'll be returned to the "Lives" set-up. Klik "OK" again to jump back to the Level editor.

The men will be replaced by three rosy apples. Well, some people find apples interesting.

Creating a Counter Object



These objects let you create counters which change during a game. You can use them to generate visible read-outs on the screen. You can also hide them away in the background to trigger an action after a set period of time.

Counter Tutorial

Enter the Level Editor, and call up the Toolbar from the "Tools" icon. Select the "Create New Counter Object" at the far right.

You'll now be presented with the following dialogue box:

The dialog box is titled "Create New Counter Object". It contains three input fields for "Initial :", "Minimum :", and "Maximum :". The "Initial :" field has the value "0", the "Minimum :" field has the value "0", and the "Maximum :" field has the value "999999999". Below these fields is a "Display as" dropdown menu currently set to "Hidden". To the right of the dropdown are three buttons: "OK", "Cancel", and "Help". Below the dropdown is an "Edit..." button.

Normally, all these counters are invisible. You can change the display method using the "Display as" menu. Click on "hidden" and select "Vertical Bar" from the list.

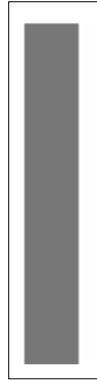
The dialog box is titled "Vertical Bar Set-up". It features a large sample box at the top showing a vertical bar with a gradient. Below the sample box are two radio buttons: "Solid" (selected) and "Gradient". Under the "Gradient" section, there are two input fields labeled "From" and "To", with "From" selected. There is also a "Pattern" checkbox which is unchecked. At the bottom, there are two radio buttons: "Count down" (selected) and "Count up". To the right of these options are three buttons: "Ok", "Cancel", and "Help".

Choose a colour from the palette window on the right. You'll see the effect in the sample box. Click on "OK" to return to the Counter Set-up.

Select "OK" again to jump back to the Level Editor.

Finally, move the counter object on the play area, and click it into place with the left button.

If you've got it right, your counter should look like this:



Cloning an object

Once you've created an object, and placed it onto the play area, it will automatically appear in the Object Shelf. You can now select this icon with the left mouse button to copy the object into your game. These "cloned" objects share the same set of attributes. So if you want to make any changes, you only need to edit one of them to modify all the copies on the screen. This system is very useful when creating arcade games. You can define an alien, set it in motion, and clone it dozens of times to produce an entire attack wave.

Copying an object

If you want your objects to be independent, you can duplicate them using the "New object" options from their pop-up menus.

Active objects and Backdrop objects are especially clever. They have a "New level object" command which lets you convert them into a new type during the copying operation.

The precise effect depends on the type of objects you are trying to convert.

Active Object to Backdrop Object

Converts just the first frame in the animation sequence of the active object to makeup the single frame Backdrop object.

Backdrop Object to Active Object

Generates an object which looks identical to the original backdrop object. But since the new object is active, it can be animated and moved as required.

Active or Backdrop Object to Quick Backdrop object

Creates a Quick backdrop object using the mosaic option. The new object looks exactly the same as the original, but it can be re-sized to generate an attractive wallpaper effect.

All other object types create an identical copy of themselves on the screen. However, since each new object is totally separate from its "parent", it can be edited individually.

Importing an Object from a drawing package

Any Klik & Play object can be imported directly from your favourite drawing package. The Picture Editor and the Animation Editor both have an "Import" option for just this purpose.

Your images can be saved in either PCX, LBM, GIF, BMP or PICT (Mac only). You can also import FLI or FLC animation files as well.

Before we go into detail, here's a step by step guide to importing an image.

Importing a single image

Enter the Level Editor and click on the "Tools" icon.

Select either the Active Object or Backdrop Object options as required.

When the editor is displayed, click on the "Import" icon.

A file selector will appear allowing you to choose a picture from the disk. You can check a picture's appearance using a "View" button. This will display your picture in a standard window, which can be closed by a single click.

Once you've selected your file, it will be loaded into a window, ready for grabbing. If you've called "Import" from the Animation Editor, move to the "Capture Menu" and turn off "Box mode" to select a single image.

Move the pointer over the top left corner of your image, and hold down the left mouse button. Drag the mouse to expand a box around your area. When you're happy, release the button to grab your image into memory. You'll be returned to the appropriate editor to make some changes.

Importing several images

In this case, you should first create an Active object using the Toolbar. When the Animation Editor appears, click on the "import" icon, and choose your image from the selector.

As a default, the import system works in "box" mode. This will search your picture for a series of images, enclosed by single lined boxes. Anything it finds will be removed from the box, and loaded straight into your animation sequence.

Getting the colours right

Klik & Play uses a fixed range of colours, which CANNOT be changed by your games. So if you try to load a picture with a different range of colours, the result may look very strange. You can synchronise your colour schemes by loading the file "KNP256.PCX" into your drawing package before you create your images.

The Capture Menu

The "Import" option provides a "Capture" Menu with the following options:

Transparent Mode

If it's on, any areas drawn in colour zero will be omitted from the final image.

Box mode

Allows you to grab several objects at a time. Each of your objects should be enclosed by a single pixel lined box. It will now be selected automatically by Klik & Play. Turn this mode OFF to grab a specific area from a picture.

Full Window

Grabs the entire picture, and loads it into the appropriate editor. If box mode is on, Klik & Play will grab box images from the whole screen.

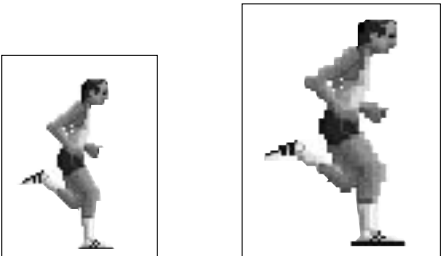
Cancel

Aborts the operation and returns you to either the Picture/Icon Editor, or the Animation Editor as required.

Mac users should press  when they click on the picture to obtain these options

4.12 Resizing Objects

The level Editor provides you with a powerful Re-size option which lets you change the shape or size of your objects at will. The procedure is simple. Just select "Resize...". from the object's pop-up menu, and drag the re-size box to the desired size. A few seconds later, you'll have your new object ready for use.



Here's a detailed explanation of the various options:

Resizing an Active or Backdrop object

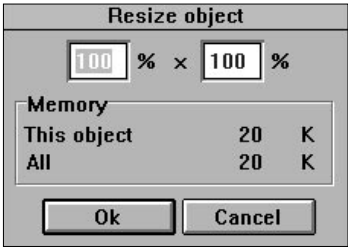
You can zoom or reduce these objects by simply selecting them with the right mouse button, and highlighting the Re-size option from the resulting menu.

A "re-size" box will now appear around your chosen object. Along its sides, you'll find eight small control points. Each point stretches the object in a specific direction.



These points can be dragged with the left mouse button to expand or contract the box on the screen. When you release the button, and select "OK", the object will change size to fit into the new area.

You can also choose the size directly from a control panel.



At the top, there are two numbers expressed as percentages. The number on the left shows the percentage increase/decrease to the object's width, and the one on the right shows the amount you've changed its height. You can adjust these values by selecting the number with the mouse, and typing in a new percentage. You can now click on the "OK" button to re-size your object by the selected amount.

If your object is large, or contains a lot of animation, you may have to wait a while for the process to complete. An expanding bar will be displayed to let you track its progress.

Warning! If you re-size an Active object, you'll change the size of every frame in its animation sequences. So if your objects are big, you'll need a lot of spare memory, and even more patience!

Also note that the quality of your images will deteriorate badly if you change their size by too much.

Resizing a Quick Backdrop object

This is really easy, as a re-size box is displayed whenever you select these objects on the screen. You can change the size of your object by simply holding the left mouse button over one of the rectangular control points, and dragging the box into a new shape. When you release it, your object will be re-drawn in your chosen size.

Note: If your backdrop uses a Mosaic pattern, it can only be re-sized in units of a single wallpaper object. If you attempt to change the size by a fractional amount, the re-size box will snap back to its original position. Alternatively, if your object displays a Colour Gradient, the effect will be recreated using the new dimensions. So it may look quite different.

Resizing a Text object

You can change the size of the text window by selecting the text with the left mouse button, and dragging one of the small control points from the resulting re-size box. The text window will automatically adjust itself to fit the available text. If you try to make it too large, or too small, it will snap back to the nearest character.

If you want to change the size of the actual text, you should select it with the right button, and choose the "Edit Text" option from the menu. You can now choose the text size using a standard font selector. When you're happy, click on "OK" a couple of times to return to the Level Editor, your text will be re-drawn in your new size.

Resizing a Score object

Resizing a score object is easy. You simply call the "Resize..." option from the pop-up menu, and drag the resulting box into shape. You can also enter the new size directly from the keyboard.

Note that Score Objects are not displayed using normal text. They are generated out of a series of images representing the digits 0 to 9. So whenever you resize the score, you'll change the size of each digit in the sequence. In extreme cases, this can require a lot of memory.

Resizing a Lives object

If your Lives objects are displayed as a number, they'll be treated in the same way as Score Objects. But if you've assigned an animation to them, they'll be handled as if they were Active objects. See the previous sections for more details.

Resizing a Counter object

These can be displayed in several ways, depending on how you're displaying the counter on the screen.

Horizontal or Vertical Bars are generated using Quick Backdrop objects, and can be resized by just dragging on their control points with the mouse. See Resizing a Quick Backdrop Object.

Numbers are displayed using a series of ten digits, just like Score or Lives objects. They are resized by selecting the "Resize..." option from their pop-up menus.

Animations are treated just like a normal Active object. Check out the previous section Resizing an Active object for more information.

4.13 Changing the Display Order of an Object

Normally your objects will be shown in the exact order they are drawn. So the first object in your game will be displayed in the background, and the later objects will appear towards the front. In practice, this can cause real problems, since it's impossible to predict precisely how your objects will appear on the screen. Supposing you wanted a missile to move in front of an attacking alien? Or one of your characters to walk behind a wall? How can these effects be achieved?

Well, it's easy. Klik & Play provides you with total control over the display order. So you can move your objects back and forth through the display, changing their depth at will.

You can change the display order using the "View" command from the object's pop-up menu.

This supplies you with the following options:

To Front: Brings your object to the foreground, and moves it in front of all the other objects on the screen.

Forward One:

Moves your object one step forward through the display order.

Backward One:

Moves your object one step back through the display order.

To Back: Places your object behind all the other objects in the game.

When you're creating your games, you'll probably need to experiment a bit to get the effect you want. Use the "Forward One" and "Backward One" options to shift your object through the display order, and test the game to check out the results.

4.14 Editing an Object's Name and Icon

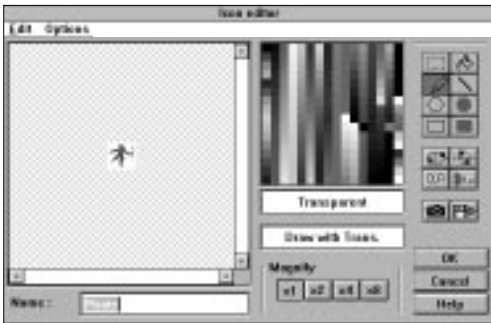
As a default, Klik & Play will automatically allocate a name and an icon to every object you create. These icons provide a standard way of representing your objects in the Level Editor, the Step Through Editor, and the Event Editor.

Each icon is exactly 32 units wide by 32 high. It's usually loaded with a reduced version of your object's image. If your object has an animation assigned to it, the icon will be created using the first frame in the sequence. The name is generated from the type of your object and a number. Typical names include: "Active object 1", "Score 2", and "Quick Backdrop 3".

You can change these attributes using a simple command from the object's pop-up

menu. Click on the object with the right mouse button, and select the "Edit Name and Icon..." option.

You'll now be presented with the following editor



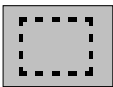
The Icon Editor

As you can see, it's very similar to the standard picture editor. To the left, there's a large window which can be used to draw your images on the screen. You can plot a point by moving the mouse over the image window, and clicking once on the left button. You can choose the drawing colour by either selecting it from the image with the right mouse button, or clicking on one of the shades from the "Palette Window".

When you've created your icon, select "OK" to return to the Level Editor. Your new definitions will be saved automatically along with your game.

Here's a quick summary of the various features:

The drawing options



Select Area

Cuts a block out of your image, and lets your move it to around your image. You choose the area by dragging a re-sizeable box around with the mouse. You can now move this box to a new part of your image. It will be locked into place when you select another option. This command should be used before calling the CUT or COPY options from the EDIT menu.



Fill

Fills a region will a solid block of colour.



Draw

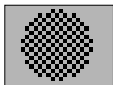
Plots a single point on the image.



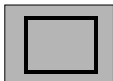
Line Draws a straight line in the selected direction. Click on the starting point with the mouse and stretch the line into position.



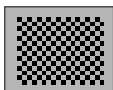
Ellipse Paints a hollow circle or ellipse. To draw your circle, move the mouse over the centre point, and drag the disc into shape using the left button.



Filled Ellipse
Generates a filled circle or ellipse.



Rectangle Creates a coloured rectangle. Click on the top left hand corner of your box and drag the opposite corner with the mouse.



Filled Rectangle
Produces a filled rectangle on the screen.



Flip Image Horizontally
Flips the image from left to right, rather like a mirror.



Flip Image Vertically
Turns the image upside down.



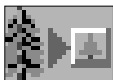
Clear Erases the image from the screen.



Import Imports an image from the a file. Select your file, drag a box around the area to be captured, and click on the left mouse button to grab the image
See Section 4.11 for more information.

In addition to the standard icons, there are three new options.

Name: This holds a twenty-two character description of your object. Select it with the mouse, and type in a new name. It can be anything you like.



Reduced Object Image:
Generates the icon directly from the object. If the object is much larger the icon will become a reduced version.



Capture: Grabs the icon from the current screen. Before using this option, it's best to arrange your windows so that the area you want is in view. You can now click on the capture icon to grab the image. The Icon Editor will vanish, and the mouse will turn into a small box. Move this box over the area you require, and load it into memory with the left mouse button. It will be copied into the Icon Editor immediately.



The Zoom buttons



Click on a button to change the magnification of your image.







The Icon Editor menu

The Edit menu provides you with a familiar set of cut and paste features.

Undo  **(Ctrl+Z)**  **(⌘ Z)**
Reverses the last operation from the editor

Cut  **(Ctrl+X)**  **(⌘ X)**
Cuts a previously selected block of the image, and saves it into memory. Before using this option, you should choose the region you wish to grab using the Cut and Paste icon. If you don't, the whole icon will be cut.

Copy  **(Ctrl+C)**  **(⌘ C)**
Copies a selected area into memory, without affecting the existing image.

Paste  **(Ctrl+V)**  **(⌘ V)**
Pastes a previously saved block back onto the image. This option automatically selects the Select area icon. So you can position your area anywhere on the image.

Del (Delete)
Erases the currently selected region.

The Options menu provides you with the following:

Change Transparent Colour
Picks one of the colours to be used as transparent.

4.15 Creating an Obstacle

Any Backdrop Object or Quick Backdrop Object can be set up as a barrier to an object's progress. These obstacles can be used to create walls, steps, or buildings in your games.

Highlight the Backdrop Object with the mouse and press the right mouse button. Select "Obstacle" from the resulting menu, you'll now be presented with the following menu:

No Moves the object into the background, and if any object comes into contact with the Backdrop object no detection will be reported, the game will simply continue as normal.

- Yes** Defines the object as a normal obstacle, such as a wall. So if a ball hits it you could bounce the ball off the wall. If an object with platform movement tries to jump up into a Backdrop (set as an obstacle) it will collide with it. So you can make roofs in your games with this. The next option allows you to make walkways which can be jumped up onto:
- Platform** Creates a floor or walkway for your platform games.
- Ladder** Sets up a ladder which can be climbed up by objects with platform movement.