3.0: The Level Editor

The Level Editor sets the scene for your games. It's a blank canvass ready and waiting for your creations.

Supposing you want to add an attacking alien to your game. You choose an "object" from one of the supplied libraries, position it carefully on the screen, and select a movement option from a menu. When you play your game it will now sweep towards the player like magic.

The Level Editor is controlled using simple menus and dialogue boxes. Everything you do can be changed around at a moments notice. So you don't need to be an artist or a programmer. All you need are the initial ideas. Klik & Play does the rest!

Your games can be divided into separate levels, each with their own unique set of objects and screens. You can add new levels using the Storyboard Editor which we saw in Chapter 2. You can create new levels with the Level Editor, we'll be explaining this here.

Each level is composed of a number of objects arranged on the screen. These objects provide you with the raw materials for your games. They generate attacking spaceships, bouncing balls and beautiful landscapes.

Before you can use these objects, you first need to know a little about them. We'll be providing you with a complete explanation in section 4.0

But for now, here's a quick run down of the basic object types:

Active Objects

These objects are used for all the parts of your game that have to move around on the screen. They allow you to create anything from a player character to a giant alien monster. Any active object can be assigned to attractive animation sequences. So they can change shape in front of your eyes. The Klik & Play Animation Editor is something really special. It lets you reverse, rotate or expand entire animation sequences at a time.

You can also move your objects around the screen using a range of powerful movement options. Want to assign an object to the Player? Choose "Eight Direction Movement", and you'll be able to control it with the joystick. Need to move your aliens through an attack wave? Pick the "Path movement" option and draw your movement pattern on the screen. It's easy with Klik & Play.

So don't forget. If you want an object to move, animate, or interact with the game, make it active.

Here's a couple of examples:
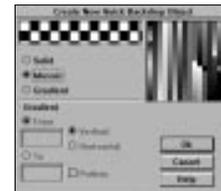
Backdrop Objects

These objects define the general appearance of your game and add a much needed gloss to your backgrounds. They're also useful for obstacles such as walls, buildings, ladders, or stairways. You can create your backdrops either from the Klik & Play Picture Editor or your favourite drawing package.

Unlike their Active cousins, Backdrop objects can't be moved in your game. They are fixed into the position where you place them.
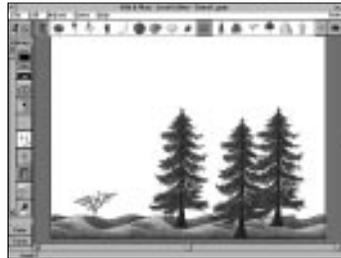

Quick Backdrop Objects

These generate colourful backgrounds without the need to consume valuable amounts of memory. They are used to create landscapes, skylines or seascapes. Quick Backdrops can display either smooth blocks or colour, attractive colour gradients, or fancy mosaic patterns like Windows wallpaper.

When you first define them, all Quick Backdrop objects are drawn in a standard size.
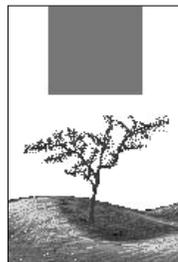
Fortunately, you can change their dimensions by simply expanding them with the mouse. So you can create anything from a thin strip, to a massive block of colour.

3.1 Getting to grips with the Level editor

Calling the Level Editor from the Storyboard Editor

As a default, Klik & Play starts off with the Storyboard Editor. So when you need to design your game screens, you'll need to call up the Level Editor by hand.

There are several possibilities:

1.Select your chosen frame with the right mouse button and choose "Go to Edit Level" from the resulting menu.

2.Click on a frame with the left mouse button and pick the "Level Editor" option from the "Game" menu

3.Highlight the frame with the left button and select the "Goto Level Editor" icon from the "Goto" button.

If this sounds unbearably tedious, you'll be pleased to note that you can enter the Level Editor automatically whenever Klik & Play is loaded. You'll find an appropriate option in the Level Editor's "Edit/Preferences" menu.

Level Editor Overview

The Editor screen is divided into seven main areas:

The Menu Bar

The Menu bar contains a series of drop down menus which can be selected using the left mouse button.

The Library List

This is a scrolling list of "object libraries" containing hundreds of attractive objects for your games. Each library is represented by a small icon, which can be selected with

the left mouse button to load its objects into the Object shelf. These objects can now be added directly to your game. You can return to your current game objects by clicking once on the Level Objects Icon.

The Object Shelf

The Object Shelf holds a list of objects which can be added to your game. These objects are represented by small icons. You can select these icons with the left mouse button, and then drop them into position on the play area.

If there's not enough room for your objects on the shelf, you can scroll through the list using the blue arrow icons on the right. You can also select objects from other frames of your game using the red arrows.

The Level Objects Icon

Loads the Object Shelf with all the objects used in the current game level. This list is automatically updated whenever you introduce a new object into your game.

The Play Area

The Play area, or playfield, forms the background to your games. This screen is displayed in a resizeable window whenever you play your game. If the screen is too big to fit into the Level Editor, you can move around it using a couple of standard Windows/Macintosh scroll bars. You can also change the size of the play area with a simple option from the "Edit/Level set-up" menu.

The Toolbar

The Toolbar allows you to create new objects for your games. These objects are defined using a series of easy to use dialogue boxes. Once they've been created,

they can be positioned on the play area directly with the mouse.

See Section 3.12 for a full explanation.

The Goto icons

Present you with a list of command icons which can be used to jump to the various parts of the Klik & Play system.

If a destination is not available, it will be greyed out

3.2 The Object Shelf

The Object Shelf holds a series of objects on the screen, ready for use. Each object can be selected with the mouse and added to your game. The objects are represented by a series of icons, which can be grabbed with the left mouse button and moved into position on the play area. When you're happy with the effect, you can drop it into place with the mouse.

The Left button
Pastes a single copy of your object on the screen.

The Right button (Mac user: ⌘ **Click**)
Places several copies , one after another.

You can abort the selection by clicking back on the object's icon in the shelf, or by pressing the "Esc" key

Any object can be inspected by highlighting it with the mouse, and holding down the left button. After a couple of seconds your object be displayed in a small window. It will be removed from the screen when you release the button.

There are two special icons to watch out for:

The Active Object Icon

This is placed before the first active object on the shelf. Active objects usually have an animation sequence associated with them.

The Background Object Icon

Indicates the start of the background objects.

Displaying the object shelf

The object shelf can be displayed in two ways (Windows only version).

Normally, it's positioned in its own box at the top of the Level Editor:

The arrow icons will allow you to scroll the entire object shelf, viewing all the available icons.

 Alternatively, you can display the shelf in a standard window. This can be expanded to show all your objects on the screen at once. To do this click on the Objects menu, then select "Show Objects", a further menu will appear, select "in a moveable window". You will then be able to size the window to your own specifications.

Selecting an Object

You can select an object from the shelf by simply clicking on it with the left mouse button.

The mouse pointer will change accordingly.
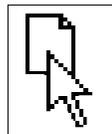
You can now move the mouse anywhere on the screen to position the object in your game. When the mouse enters the play area the pointer will be replaced by a full sized copy of the object. This can be moved over the play area, and dropped into place with a single click of the left mouse button.

If you want to position several objects, you can paste them on the screen with the right button instead (Mac users: ⌘ **Click**). This will assign your object permanently to the mouse. You can now make as many copies as you like, without having to continually reselect your object from the shelf. It's a good idea to paste your last object with the left button. This will return the mouse back to normal.

If your destination area is not displayed on the screen, you can scroll the play area through the editor using the scroll bars to the right.

3.3 The Library List

Klik & Play comes complete with hundreds of ready made objects for your games. These objects are grouped together into "libraries". Each library is represented by a small icon in the library list. If you select one of these icons with the mouse, the Object Shelf will be loaded with the library's contents. You can now copy these objects directly into your own games.

Naturally, you're not just limited to the supplied object libraries. It's easy to create your own. Just load up a game containing your objects, choose the "Save game as library" option from the Objects menu. In the resulting save library selector, give your object group a filename and then save them. From now on, the new Library will be instantly available from the Library List.

Selecting an object from a library

The Klik & Play Library system is very simple to use. You simply move the mouse over an icon in the Library List and click on the left button to load the library into the Object shelf. You can now select these objects with the mouse and position them anywhere over the play area.

Let's see an example of these libraries in action:

Place the pointer over the library list and move it down until you're over the "Toyland" icon


If it's not on the screen, use the scroll bar to the left of the list to move it into view.

The Handy Hints system will automatically display the name of each icon in a small box. So it's easy to see what you're selecting.

Click on the left button and the library objects will be loaded into the object shelf.

Now move the mouse over the "Pudsie the cat" icon and select it with the left button.
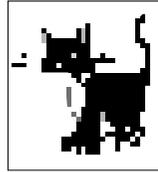
Position the mouse over the centre of the play area. The pointer will be replaced by a small cat.

Finally, click on the left button again to fix this object into place.

Easy isn't it.

Let's try another experiment.

Place the mouse over the "heart and soul" object on the shelf. As before, select it with the left button.

You can now paste your object onto the play area with the right button (Mac user: ⌘ **Click**).

After it's been positioned, the mouse will stay assigned to your heart object. So you can make as many copies as you like, without having to select each one separately. When you get to the last copy, drop it into place with the left button. The mouse will now return to normal. Alternatively, you can abort from this mode by pressing the "Esc" key from the keyboard.

Once we've added some objects to our games, we can select them directly from the object shelf. You can bring up a list of the current level objects by clicking on the "level objects" icon.
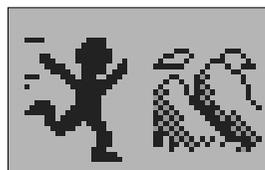
3.4 The Play area

The Play area provides a window to your game. It's the screen where all the action takes place.

If the play area is larger than the current window, you can move through it using the scroll bars along the sides.

The play area is divided into two sections.

The Visible area

Holds the part of the screen which will be displayed when you run the game. It's initially shown as a white panel. This will fill up as you add more objects to the level.

The Holding area

This area is totally invisible during play. It stores all the objects which will be introduced later in the game. It's coloured grey.

Objects can be freely positioned on the play area, and can be moved around at any time. They can be copied, grabbed or deleted using a range of features from the "Edit" menu. You can also change the order in which your objects will be displayed on the screen. Just click on the object with the right mouse button and select "View" to get a list of the available display options.

If you wish to include items such as counter objects in your game, then the holding area serves as an ideal place. Although your counter object may not be required until later in the game, by storing it in the holding area you are still able to edit the object easily, and make any necessary changes to the object.

Moving an Object on the play area

Klik & Play objects can be freely moved around the play area.

Here's the procedure:

First place the mouse over your object. The pointer will change to a selection arrow.

You can now hold down the left mouse button to reposition your object on the screen. Your object will be surrounded by a small rectangle like so:

This can be moved to a new position on the play area. When you release the mouse button, your object will jump to the new location.

Let's see an example of this system.

First, we'll position an object on the play area.

Select the "Toyland" icon from the library list and click on the "Spinning top".

Move this over the centre of the screen and drop it into place with the left mouse button.

We'll now drag this object to a new location.

Move the mouse over the spinning top on the place area. The pointer will change to a selection arrow.

As you can see, your object is surrounded by a hollow box. This can be dragged around the screen to move your object on the screen. Hold down the left button and place the box over a new part of the play area. Now release the button, and the spinning top will move to the new location.

Scrolling the play area

The play area is surrounded by two "scroll bars".
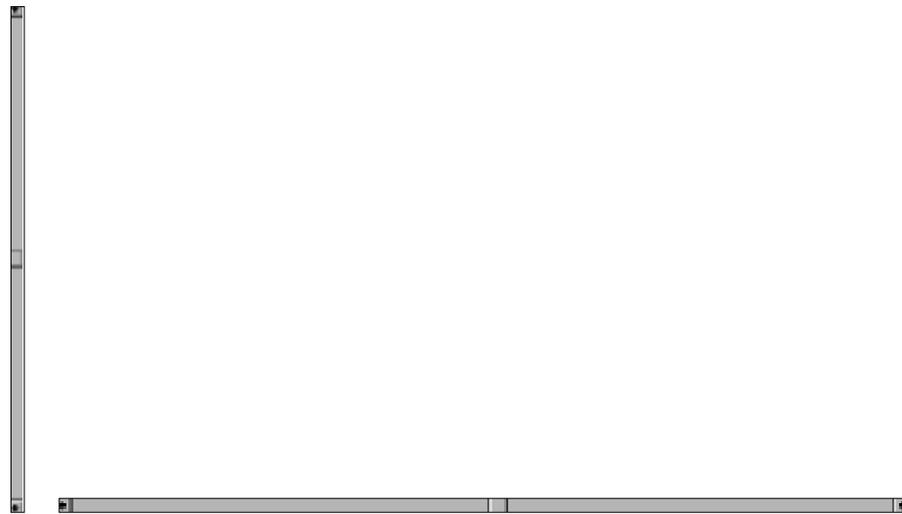
The vertical bar moves up and down through the play area.

The horizontal bar scrolls it left or right.

Near the centre of these bars, there's a small button which can be dragged with the mouse.

You can drag these buttons to gradually shift the play area through the editor window.
If you click on any other point on the bar, the window will scroll a large distance in the selected direction. You can use this feature to quickly jump to a general region of the play area.

The small arrow icons let you scroll the play area by a single unit at a time.

To quickly centre the play area, click on the box at the bottom right of both sides.
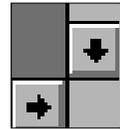
3.5 Deleting an object from the play area

Deleting a single object

You can delete one of your objects by simply clicking on it with the left mouse button and either pressing the DELETE key, or calling the Delete option from the "Edit" menu.

Here's an example:

Before we can test this feature, we'll need to copy some objects to the screen. First, select the "Toyland" icon from the library list. You may need to drag the scroll bar a bit to move it into view.

The Toyland library will be loaded into the object shelf.

Click on the "Balloon" object and position it where you like. Now drop it into place with the right mouse button. Make four copies of this object at various points on the play area. When you get to the last balloon paste it on the screen with the left button.

We now have four balloons on the screen. Let's remove one of them.

Move the mouse over any balloon you like, and select it with the left mouse button. It will be highlighted like so:
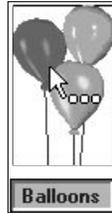
Hit the Delete key to remove it from the game - it's that simple!

Deleting a group of objects

If you want to delete several objects at a time, you should hold down the CTRL key, and choose each object with the left mouse button. A box will enclose each object as you select them. You can now press DELETE to erase the entire group, or click on a blank area of the playfield to deselect them.

Let's delete the remaining balloons from the previous example.

Place the mouse over the first balloon, and click on it with the left button as before.

Now hold down the Ctrl (control) key and whilst it's pressed, click on another balloon.

Repeat this process for the second and third balloon on the screen.

Hit the Delete key (or choose Delete from the Edit menu) and watch all three balloons vanish from the screen.

Alternatively, you can delete a whole block of objects by dragging a box around them. Move the pointer over a blank part of the Play area, and hold down the left mouse button. You can now drag a box around the area you wish to erase and delete your objects as before.

3.6 Copying an object

Any object you create will be automatically added to the current level list. So you can copy an object by simply grabbing its icon from the Object Shelf and pasting it on the screen.

If the Object Shelf is displaying a library's objects you'll need to select the current game objects by clicking on the "Level Objects" icon. Here's an example:

First, we'll select an object from the "Toyland" library.

Move the mouse over the "Toyland" icon and select it with the left button.

If it's off screen, drag it into view with the scroll bars.

Now click on the "Clown" icon from the object shelf, and position it anywhere on the screen.

Drop the clown into place with another click on the left button.

Let's make a copy of this clown somewhere else.

Select the level objects icon to load up your current objects into the shelf:

You should see this:

Now select this object with the mouse, and drop a new copy into position.

Simple isn't it?

It's also possible to clone any object by clicking on it with the right mouse button, and choosing the "New Level Object" option from the resulting menu. See Section 4.11 for more details.

3.7 Grabbing an object from another Klik & Play game

This can be accomplished using a simple option from the Objects menu. Select "Pick Objects from a game" and choose any Klik & Play game from which you want to copy an object. The requested objects will be loaded straight into the Object shelf ready for use.

Note: If the selected objects have been assigned to a movement sequence, or animation, these attributes will be grabbed automatically as part of the copying process. So you'll be able to use them immediately in your own games. But since they are totally separate from the originals, you can make as many changes as you wish, without affecting the existing game.

When you've finished you can click on the Level Objects icon to display the objects from the current game.

Let's see an example of this technique:

Move the mouse over the "Objects" menu at the top of the screen.
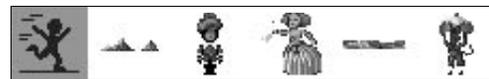
Select the "Pick Objects from a game" option.

You'll now be presented with a standard Klik & Play file selector.

Choose the file "romeo.gam" from the Gamepack directory.

And click on "OK" to load its objects into memory.

The game objects will be loaded into the object shelf like so:

Finally, select the "Thin Romeo" object and place it anywhere on the play area.

You can now test the effect by choosing the "Play Level" option from the "Game" menu.

Your new object will move around the screen in its original movement pattern.

3.8 Viewing an object

To view an object from the Object Shelf, move the pointer over its icon, and hold down the left mouse button. The object will now be shown in a small window, which will disappear when you release the mouse.

Let's try this for ourselves.

Select the "Toyland" icon from the library list and move the mouse over the "Dude's
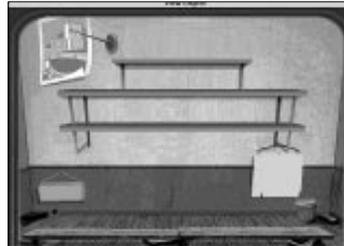
Room" object.

It looks like this:

We can now display this background on the screen.

Hold down the left button over "Dude's room" and wait for a few seconds as the full picture is being loaded into a window.

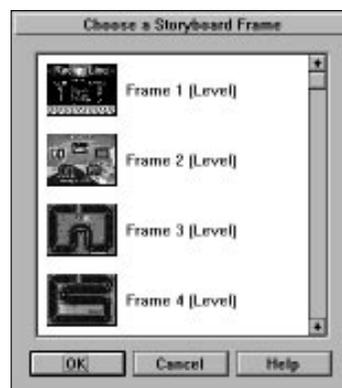When you release the button, the picture will be removed.

3.9 Moving to a new level

If you've defined several levels for your game, you can move between them in two ways:

1. Call up the "Jump to Level" option from the "Game" menu.

2. Select the "Jump to Level" icon from the "Goto" icon.

Either way, you'll be presented with the following screen:

You can now pick your level by double clicking on it with the left mouse button.

If there are more than four levels, you can move through the list using the scroll bars to the right of the selection window.

3.10 Testing times

After you've created your levels, you're ready for the fun part. Playing your actual games.

Testing a level

If your game has several levels, you should first select one to be tested using the "Jump to Level" option from the "Game" menu. See section 6.0.

You can now test your level using two options from the Game menu.

Play Level As Finished

Plays your current level. The Level Editor will now disappear, and you'll be returned to the Windows/Macintosh desktop. In the centre you'll see a large window containing your game. You can play this game by selecting "New Game" from the "Game" menu, or hitting F2 (Mac: ⌘ N). You can exit by either calling "Quit" from the "Game" menu or just pressing ALT and F4 (Mac: ⌘ Q) from the keyboard.

Step Through Editor

This option is a little more complicated. It calls up the Klik & Play Step Through Editor which allows you to define the actions in your games. Full

details can be found in Section 5.1.

Testing an entire game

You can play your current Klik & Play game using either the "Play Game as Finished" option from the "Game" menu, or by selecting the appropriate icon from the GOTO icon.

In both cases, your game will be loaded into a standard window, and the Level Editor will disappear. Note that these can only be called up from the Storyboard Editor.

Look at the "Game" menu for a number of useful options.

You can start the game by selecting "New game", and leave with "Quit".

If something important comes up (like your boss) you can remove the game from the screen by hitting the "Panic" key F5. You can return to your game by pressing F5 again.

Example

First, we'll load a game into Klik & Play.

Call up the "File" menu from the top of the screen and highlight the "Load game" option.

You'll now be presented with the Klik & Play file selector.
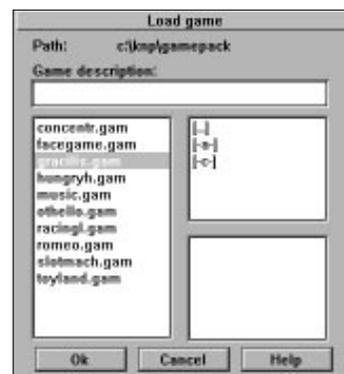
Select the Gamepack directory.

Drag the scroll bars until you see "romeo.gam".

Double click on this and it will be loaded into memory.

You'll be immediately returned to the Storyboard Editor.

Select "Play Game As Finished" from the "Game" menu.

Your game will be loaded into it's own window, and the Storyboard Editor will disappear.

If you want to play another game, press Alt + F4 (Mac: ⌘ **Q**) or call up "Quit" from the game menu.
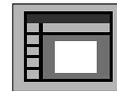
3.11 The Goto Icons

The GOTO button from the Level Editor provides a simply way of moving around the Klik & Play system. Each part of the package is represented by an icon. Here's the list:
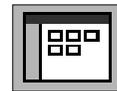
Goto Storyboard Editor

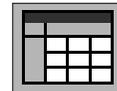Takes you to the Storyboard Editor where you can define new levels for your games.

Goto Level Editor

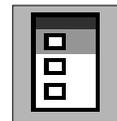Jumps to the Level Editor. If you're already there, it will be greyed out.

Goto Step Through Editor

Enters the Step Through Editor to test your games.

Goto Event Editor

Calls the Event Editor to add events and actions to your game.

Jump to Level

Loads the selected Level into the Klik & Play Level Editor (only if there's more than one level in the game).

Play Game as Finished

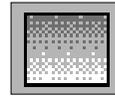Plays the entire game, in its own window (only available from the Storyboard Editor).

Play Level as Finished

Plays the current level.

3.12 The Toolbar

The Toolbar is a control panel which allows you to create new objects for your

games. It can be displayed by selecting the Tools button from the Level Editor. Each icon adds a particular type of object to your game.

Quick Backdrop Object

Creates a Quick Backdrop object to your game. You'll be asked to define the colour and fill pattern used by your new object. You can now position your object on the play area and drop it into place with the mouse. It can be resized by clicking on a corner with the left mouse button and dragging it into shape. See Section 4.5

Backdrop Object

Adds a new Backdrop object to your game. You'll be immediately presented with the Picture Editor so that you can draw your new object on the screen or import it from a file. See Section 4.3 for more details.
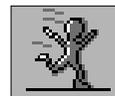
Active Object

Generates a new active object. The Animation Editor will be called automatically to let you define each frame of the object's movement sequence. Full details can be found in section Section 4.4.

Text Object

Introduces a new Text object to your game. You can define several paragraphs for each object and choose between them during your games. The appearance of your text can be set using a standard font selector. You can also change colour and justification using a pop-up menu. See Section 4.6.

Question Object

Defines a new Question object. You'll be requested to enter the Question and the acceptable Answers using an appropriate dialogue box. See Section 4.7

Score Object

Produces a new score object for your games. You can choose the style from any of the available TrueType fonts. Further information can be found in Section 4.8.

Lives Object

Creates a new Lives object. The remaining lives can be displayed either as a number, or a picture. See Section 4.9.

Counter Object

Adds a counter object to your game. You can choose how often the counter will be updated and enter the minimum and maximum values using a simple dialogue box. See Section 4.10 for more details.

In the next chapter, we'll be explaining these object in detail, and showing you how to create, edit, and animate them on the screen.