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Klik & Play™ 1.0

THE OFFICIAL GAME DESIGNERS' GUIDE

MAXIS

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Klik & Play™ 1.0

The Official Game Designers' Guide

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Klik & Play 1.0

The Official Game Designers' Guide

by

Rusel DeMaria

Prima Publishing
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Preface & Acknowledgments

Klik & Play is a wonderful tool for creating games or game prototypes. It's loaded with tools and built-in procedures to make life easier for the amateur game creator. However, the expanses of the human creative mind are much greater than the simple ones and zeros of any software program written so far, and so it's true of Klik & Play that it can't do everything you or I might imagine. On the other hand, with a little ingenuity, you can get Klik & Play to do a lot of clever and wonderful stuff.

Part of the fun of playing with KNP is the discovery of another way to do something — a "workaround," in programming terminology. During the course of writing this book, I discovered several interesting workarounds. Most of them are included in the game I created for this book. It's called Normal's Quest because it uses the character from the Fully Animated Characters library in KNP called Normal Guy. Normal's Quest is an example of a fairly elaborate and reasonably complete game created entirely in Klik & Play. By examining the "code" I've included in this book, and by reading the commentary that accompanies that code, you can get a pretty good idea how to create a variety of products using Klik & Play.

I've also included some annotations to a few other games. Two of these games, Crazy39 and Hungry11, come with Klik & Play. The others were created by Michael Perry and Will Wright at Maxis.

This book is meant to be an example-oriented book. What this means is that you learn by imitation or emulation of other people's work. By the time you read this book, people will have figured out lots of new ways to enjoy Klik & Play, and if you can get on-line with a bulletin board system, you may find people have uploaded some games that you can tear apart to learn how they work.

The best advice I can give you is to experiment, experiment, experiment. Look at as many other games as you can, and keep pushing your own limits.

All of the games discussed in this book are available through America Online™ and CompuServe™. On AOL, go to keyword "Maxis" to get to the Maxis forum, and enter "The Trading Post" to get to the Klik & Play folder. On CompuServe, go to the "Gamepub" forum and open the Maxis library area.

Finally, I want to thank Michael Perry for his help, cooperation, and creative input to this book. Also thanks go to Mark Meyer, John Csicsery, Jeff Braun, Robin Harper, and, particularly, to Will Wright for his odd contribution to this book, Soccer Death.

Closer to home, I'd like to acknowledge the people at DeMaria Studio, Tom & Mychelle Stratton, and my family, Max & Marsha, and especially, Utterly Alex.

One: Zen and the Art of Klik & Play

I assume that if you're reading this book, you already have Klik & Play and want to understand how to create better and more interesting games with it. If you've read the manual, you know some of what KNP can do. If you have not read the manual, I suggest you look through it, if not cover-to-cover, at least to gain familiarity with the menus and icons in the product and how they work. This book will not tell you how to perform specific tasks. It is more a primer on getting more out of KNP.

Scratch a programmer and you'll find a problem solver. That's because programming a computer is an esoteric task that involves some very abstract thinking. Although KNP takes care of most of the programming necessary to create a game, it's basic functions are more a set of tools than an easy construction set for making instant games. The more complex and involved your ideas, the more likely it is that you'll need to be a problem solver to accomplish them with KNP.

Programmers call them "workarounds." What this means is that you have to find a way to "work around" the limitations of a program, programming language, or computer or operating system. In KNP, you'll be using lots of clever workarounds and tricks to simulate the events you want. You'll also be using some clever algorithms — essentially mathematical formulas that produce meaningful results.

Most of this book is filled with listings of some of the early games created with KNP and how they were made. I've annotated the steps and explained the logic of these games in an attempt to help you gain familiarity with various workarounds, algorithmic routines, and simple tricks. I've also included a multi-level game called Normal's Quest. Normal's Quest is a game with a simple theme that contains many different styles and types of experiences and tracks a lot of information with limited resources. The ideas used in Normal's Quest may suggest some directions or techniques that you can use in designing your own games.

Keeping it Simple

	All the events									
1	• collides with the background							✓			
2	• collides with the background								✓		
3	• leaves the play area							✓			
4	• leaves the play area								✓		
5	• Start of Level				✓			✓	✓		✓
6	• Alterable value A of >= 2 + Alterable value A of = 0								✓		
7	• Collision between and	✓			✓		✓				
8	• Collision between and	✓		✓		✓		✓			✓
9	• Collision between and	✓			✓			✓	✓		
10	• Number of = 0		✓								
11	• animation Disappearing is over + Number of = 0 + Number of lives of > 0			✓							
12	• Number of lives of reaches 0		✓								
13	• Alterable value A of = 1 + Every 01'00"										✓
14	• Alterable value B of = 5	✓		✓							✓
15	• Collision between and + Number of in zone (0,168) to (336,360) > 0	✓		✓	✓				✓		
16	• Collision between and								✓		
17	• Collision between and + Number of in zone (0,0) to (336,167) > 0	✓		✓	✓				✓		
18	• leaves the play area										✓
19	• collides with the background										✓
20	• New condition										

OK. Now you've got this great idea. You want to create an awesome game in KNP. Maybe even send it to friends or upload it to the electronic nets. Cool. But where do you start?

First, test your basic assumptions. Test your character movement, attack and defense (if any), basic character interactions (if any), and so forth. Take each part of your game and try to make it simple.

Keeping it simple is a rule for good programming, whether you're working with KNP or with C ++. Making it simple is often a process of hours of hard work followed by instants of bell-ringing inspiration. I am not a programmer by profession, but in the course of working on many projects, I've had need to program various kinds of languages, and by far the most exciting part of programming for me is waking up at five in the morning with the solution to a problem that's been dogging me for days, or a way to take 60 lines of code and reduce them to 20 while simultaneously making the routine work better than it ever did before. I had several of these inspirational moments when I was working with KNP. They're worth the hours of headaches as you tweak and knead the program to do what you want.

KNP Tips and Tricks

It won't always come easily. It sometimes seems that everything should work, and you can't figure out why it doesn't. Sometimes it just won't work, and you have to readjust and try something else. KNP won't do some things. For instance, if you want to create your own version of Doom, you're out of luck. At least for this version of KNP. If you want to create another Myst, you'll need to be a very good artist. If you can get the artwork together, you might be able to

come close to a Myst-like game, with some exceptions. For instance, Myst uses a lot of video that's incorporated into scenes. So far, you can't do that with KNP. But you could create hot spots to click on, digitized speech to play as sound samples, and puzzles of your own devising. There's plenty of power in KNP to create intriguing experiences to share with the world.

One other suggestion: If you're not much of an artist, but you have great ideas, you might want to consider teaming up with someone who can create the images you want. A game without appealing artwork is like a car with three wheels. If you're really clever, you could make it drive (there have been three-wheeled cars), but that fourth wheel makes it work a lot better. Same with good art. Original, intriguing art will help.

Drag & Drop Techniques

- First select the condition you want to duplicate.
- Then drag it down to an empty event.
- To add a condition from another event, drag it down to the Event number icon.
- To duplicate an object condition, drag the checkmark where you want it. KNP will let you know if you can place it there or not.

What follows are a few specific tips for getting the most out of KNP. The rest of the book is devoted to listing out various games and showing how they work.

- Try to finish one complete level of a game before creating subsequent levels so you can duplicate the core design.
- Prototype new ideas in test frames before trying to add them to a full game. That way you work out the bugs before you create your final product. In multi-level games, this is especially important. Otherwise, you may end up having to make changes to several frames after you've already done a lot of work on them. This can be tedious.

Remember, you can drag and drop information and often duplicate a condition, then edit it.

Example: In Frame 9 of Normal's Quest, I had four different Barbarian characters and four different Circle Star objects. I had to create a lot of repetitive events for each of these eight objects. I used the drag and drop technique to do so.

You can grab objects from other levels in your game. If you've got a complex, animated character or object, or you've done some custom work on an object that comes with KNP, it's a lot easier to grab it from another frame.

Example: When you're in the Level Editor, you can scroll with the red arrows in the upper right corner of the library window. Find the frame that has the object you want and drag it onto your work area. Return to the frame specific library and the object will be there.

- Document your game and the procedures you use. Especially document how you use global

variables if you use them to track different conditions between frames (see Transmigration of Global Variables below).

When you're designing or analyzing a game, it helps to place Counter objects in the play area and assign to them the values of variables you're tracking. For instance, if your game uses alterable value A of an object to track some condition, set the Counter to read the value of alterable value A (using an Always condition), and you can track the changes in this number and discover any errors in your program.

- To lay the tiles down on the play area in the Level Editor, you want everything to line up perfectly. This isn't always easy to do, and takes a lot of time to make sure nothing is out of place. The easy way to line everything up is to use the Snap to Grid feature (see box on this page).
- If you can't tell what is happening in a particular event, place a noticeable sound in that event and listen for it to occur. Or create a special object. Then watch when that event occurs.
- To delete all occurrences of a particular object in a frame, first right-click on that object in the library, then right-click in the work area (without selecting another object). Finally, press the Del key and all occurrences of that object will be removed from the frame and it will no longer appear in the library. Caution: It's a good idea to make sure there are no events in the Event List that use that object before you remove it from the library. It's possible to crash KNP if you remove an object that is used extensively in the event list.

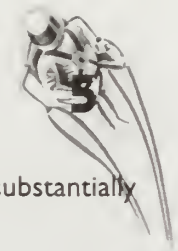
Remember, you can select several objects at a time. KNP uses the Control key to do so. Select one object, then, holding down the Control key, click on additional objects. In some cases, you can also select multiple objects by drawing a box around them. To select active objects this way, you can go into Preferences and check the box that locks the backdrop and/or quick backdrop objects. This makes it easier to draw a box around multiple active objects.

You can also select multiple animation frames, also using the Control key. If you have a need to transfer a whole animation sequence from one place to another, you can use the Copy and Paste functions, along with the multiple selection, to do so quickly.

- Often when you're designing a game, the process you use is anything but orderly. There's lots of experimentation and false starts that need to be fixed. In the end, your event list may be somewhat disorganized. It's a very good idea to order the event list logically once you have things working. It's an even better idea to document the event list the way I have in this book. It's tedious, to be sure, but it reveals lots of problems and oversights very quickly. I know from experience. I caught several mistakes in Normal's Quest while I was typing the

Using the Snap To Grid Feature

1. Place one of the objects exactly where you want it and make sure it is selected.
2. Open the Preferences menu item (under Edit on the Menu Bar).
3. Under Level Editor Preferences, click on the Setup button.
4. Click on Selected Object Coordinates and Selected Object Dimensions. This sets your selected object's location and size as the starting point for the grid.
5. Now click OK and then check the Snap to box and click OK again.
6. Now you can place objects exactly next to each other by using the grid. When you're done, open Preferences again and click on the Snap to box again so that the X no longer appears. Now you can move objects freely on the screen.



code in for this book, and in other instances, I was able to improve the code substantially because I organized it and typed it in.

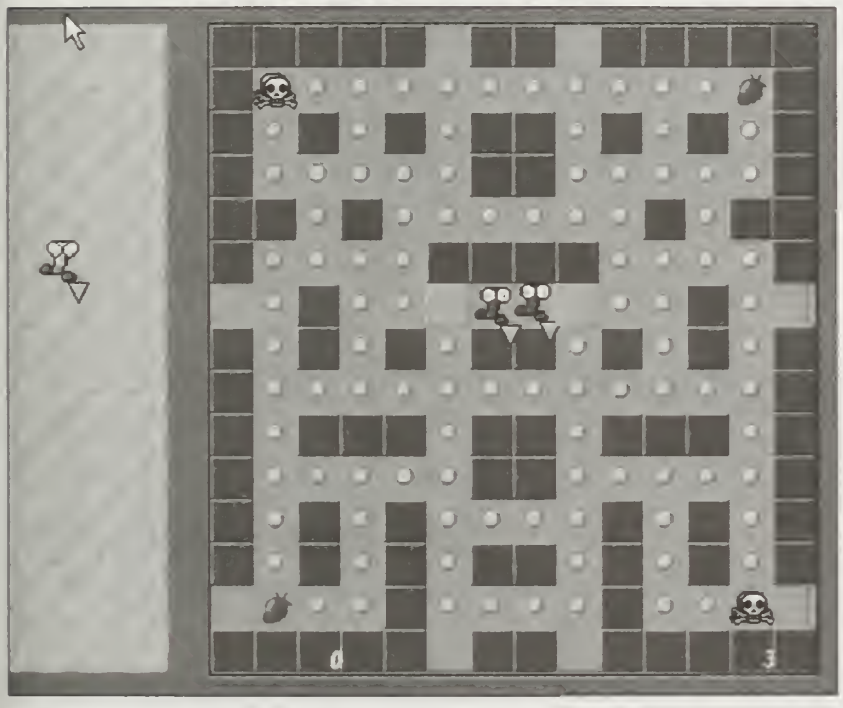
In Normal's Quest, I used a technique to keep one object attached to another. This technique is used throughout the game to make Normal Guy's weapons appear to stay in his hands as he uses them. You could also use this technique to make a character appear to carry an object, or to create a creature out of separate parts (as in the Spider in Frame 12 of Normal's Quest).

The Transmigration of Global Variables

In some cosmogonies, there is the concept of an immortal soul and its ability to transmigrate from life to life. In KNP, there's an analogous effect. There are the local, transitory effects like alterable values A through C and various counters created and used in a given frame. These are the equivalent of the experiences we each have in a single lifetime. Once we die, we leave the current frame and start another, but we leave behind most of the transitory effects of our lives — our bodies, our jobs, our families, our money and possessions, etc. However, the players' lives and score continue from frame to frame, just as the soul continues from life to life. To take the analogy further, during each life the activities of that brief existence (our families, jobs, etc.) cause changes in the nature of the soul, causing beings to come back with different capabilities or lessons to learn. In the same way, changes in the player life and score objects also carry over from frame to frame in KNP and effect the nature of the subsequent frames.

So if you need to use a number in another frame or test a condition when the player restarts a frame, you will have to use either the player's score or the player's lives object to do so. One way to get more such "global variables" is to create an object for each player (1-4) and use the lives and score for the other players as variables. For instance, you might create an active object, place it in eight-directional movement and assign it to Player 2. Position the object outside the play area at the beginning of each frame, and use its score and lives to track various values. This technique is used to its fullest in the game Normal's Quest which is described later in this book.

Two: Chippy (a Pac-Man sort of thing)



This game by Michael Perry at Maxis is a simple example of an overhead maze game similar in concept to Pac Man. It's very easy to produce with graphics available in any version of KNP.

This game demonstrates one simple method of having an enemy character chase the player's character. Michael uses the Skull's alterable value A to control how often the Skull looks in Nasty 4's direction. This game is simple and easy to recreate in KNP. It's a good beginning game.

Active Objects

Strawberry
Description: Strawberry
Movement: Static

Dot
Description: Dot
Movement: Static

The Dot object was created by using the various tools in the animation editor.

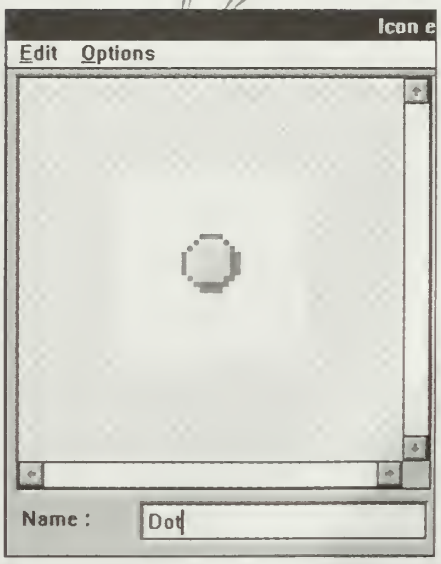
Nasty 4
Movement: eight directions
Description: Player Character Controlled by Player 1

Both Nasty 4 and Nasty 1 are simply the Euroman characters that come with KNP.

Skull
Description: Skull & Crossbones
Movement: ball

The Skull active object was created by selecting the Skull object called Danger from the Game Pieces and Symbols library that comes with KNP and then changing it to an active object and renaming it "Skull." Then the eyes were made to glow by filling them with a gradually brighter red in successive animation frames.

S Block
Description: Special Block
Movement: static



The Dot object

The S Block is a simple shaded orange square. Its size is 24 wide by 24 high.

Nasty 1

Description: Super Player Character
Movement: eight directions
Controlled by Player 1

Background Objects

Quick Backdrop 1

Quick Backdrop object
Obstacle
24 x 24

Quick Backdrop 1 is a tile made using the Mosaic option found in the Quick backdrop object setup. The blue square is shaded along the edges with two edges light and two edges dark to give the dimensional effect.

Quick Backdrop 2

Quick Backdrop object
No Obstacle
336 x 364

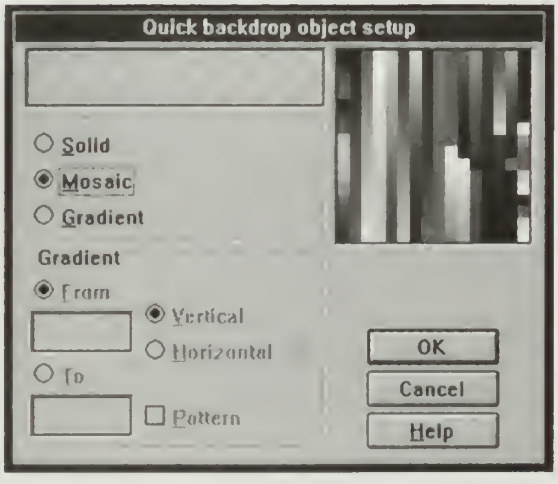
This quick backdrop used in the game is a simple light green backdrop.

Quick Backdrop 3

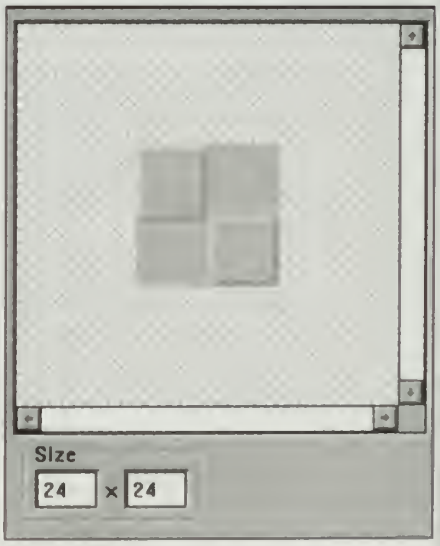
Quick Backdrop object
No Obstacle
336 x 360

Quick Backdrop 3 is an extra quick backdrop, but it is interesting

Special animation for the Skull



Quick Backdrop object details.



Using the Snap To Grid Feature

1. Place one of the objects exactly where you want it and make sure it is selected.
2. Open the Preferences menu item (under Edit on the Menu Bar).
3. Under Level Editor Preferences, click on the Setup button.
4. Click on Selected Object Coordinates and Selected Object Dimensions. This sets your selected object's location and size as the starting point for the grid.
5. Now click OK and then check the Snap to box and click OK again.
6. Now you can place objects exactly next to each other by using the grid. When you're done, open Preferences again and click on the Snap to box again so that the X no longer appears. Now you can move objects freely on the screen.

to look at how it was made. By creating simple shading effects, you can get a nice 3D look. The square image is light green with a light blue shading on the tops and left sides of the "raised" area and darker green along the bottom and right sides.

Game Objects

Lives 1
Lives object
Player 1

Score 1
Score object
Player 1

Event List

1. Nasty 4 collides with background
Nasty 4: Stop

2. Skull collides with background
Skull: Bounce
Add 1 to alterable value A

Event 2: When the Skull collides with the background, it bounces and 1 is added to alterable value A. This condition is used in Event 6.

3. Nasty 4 leaves the play area
Nasty 4: Wrap

4. Skull leaves the play area

Skull: Wrap

5. Start of Level

Player 1: Set number of lives to 3
Nasty 4: Set alterable value A to 0
Set alterable value B to 0
Skull: Set alterable value A to 0
Nasty 1: Destroy

6. Alterable value A of Skull >= 2

+ Alterable value A of Nasty 4 = 0

Skull: Look at (0,0) from Nasty 4
Set alterable value A to 0

Event 6: Checks to see the alterable value A of the Skull. If the the Skull's alterable value A is greater than or equal to 2 and Nasty 4's alterable value A is zero, then the Skull looks in the direction of Nasty 4 and its alterable value is set back at zero.

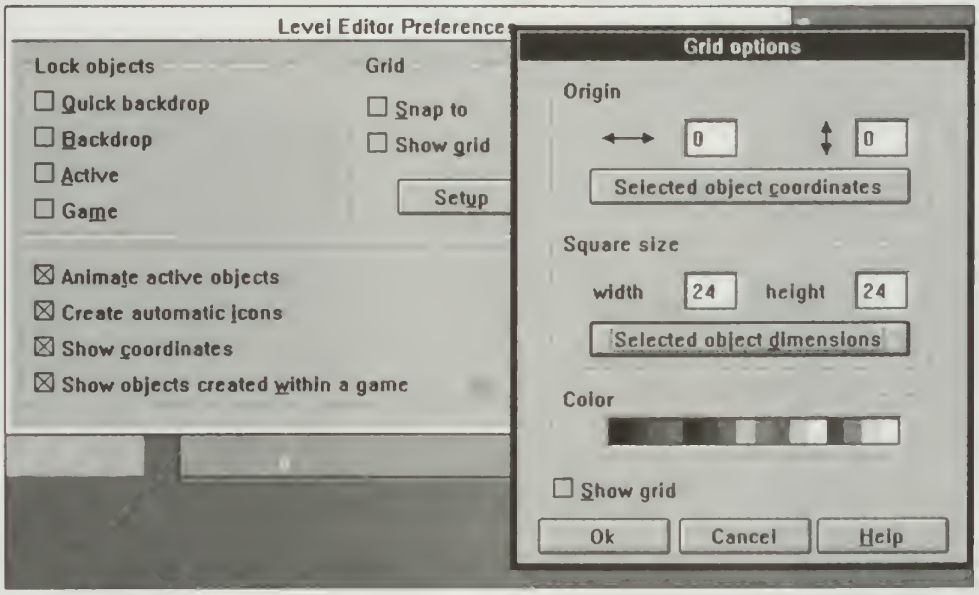
7. Collision between Nasty 4 and Dot

Sound: Play sample pingelec
Player 1: Add 10 to Score
Dot: Destroy

Event 7: When Nasty 4 collides with a Dot, the Dot is destroyed, a sound is played, and 10 points are added to the player's score.

8. Collision between Nasty 4 and Strawberry

Sound: Play sample sirenwow 4 times



The Event Editor Preferences screen & Grid Setup screen

Create new object: Create Nasty 1 at (0,0) from Nasty 4
Strawberry: Destroy
Nasty 4: Set position at (-93,164)
Destroy
Nasty 1: Set alterable value A to 1

Event 8: When Nasty 4 collides with a Strawberry, the super character is created by first placing Nasty 1 where Nasty 4 is, then placing Nasty 4 off screen, then destroying it. Nasty 1's alterable value A is set to 1. Event 13 reads this condition.

9. Collision between Skull and Nasty 4

Sound: Play sample gameend (uninterruptible)
Player 1: Subtract 1 from Number of lives
Nasty 4: Destroy
Skull: Bounce

Event 9: when a Skull collides with Nasty 4, Player 1 loses a life and Nasty 4 is destroyed.

10. Number of Dot = 0

Game Storyboard Controls: Next frame

Event 10: if the player has "eaten" all the Dots on the screen, then the game moves to the next frame.

11. Nasty 4 animation Disappearing is over

+ Number of Nasty 1 = 0
+ Number of lives of Player 1 > 0
Create New Objects: Create Nasty 4 at (*146,146)

Event 11: If the player's character is killed, Event 11 looks to see if the Disappearing animation is complete, then checks to see if there are no Nasty 1s and also that the Player has more than one life left. All this being true, a new Nasty 4 is created at 146,146 on the playfield.

12. Number of lives of Player 1 reaches 0

Game Storyboard Controls: Restart current level

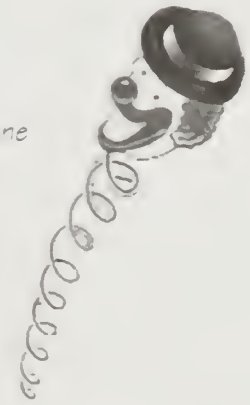
13. Alterable value A of Nasty 1 = 1

+ Every 1'00"
Nasty 1: Add 1 to alterable value B

14. Alterable value B of Nasty 1 = 5

Sound: Play sample flibber (uninterruptible)
Create New Object: Create Nasty 4 at (0,0) from Nasty 1
Nasty 1: Set position at (-93,164)
Destroy

During Events 13 and 14, Alterable Value B of Nasty 1 is incremented by one each second. When it reaches 5, Nasty 1 is removed from the playfield, substituted by Nasty 4, then destroyed.



15. Collision between Skull and Nasty 1

+ Number of Nasty 1 in zone (0,168) to (336,360) > 0
Sound: Play sample gameon (uninterruptible)
Create New Object: Create Skull at (26,26)
Player 1: Add 150 to Score

Skull: Destroy

Events 15 and 17: When the Skull collides with Nasty 1, the Skull is destroyed. These events test to see where the player's character is, placing a new Skull on the other side of the screen. Otherwise, a new Skull might be placed too near (or on top of) the player's character.

16. Collision between Skull and S Block

Skull: Bounce

Set alterable value A to -1

Event 16: When the Skull collides with the S Block (which is the home for the Nasty 4 characters), it bounces and its alterable value A is set to -1. (See Event 6.)

17. Collision between Skull and Nasty 1

+ Number of Nasty 1 in zone (0,0) to (336,167) > 0

Sound: Play sample gameon (uninterruptible)
Create New Object: Create Skull at (290,313)
Player 1: Add 150 to Score
Skull: Destroy

18. Nasty 1 leaves the play area

Nasty 1: Wrap

19. Nasty 1 collides with the background

Nasty 1: Stop

Three: Molyball (An asteroids sort of thing)

Active Objects

Molecule
Description: Molecule
Movement: Ball

Helicopter
Description: Player's icon
Movement: Race car move
Controlled by: Player 1

3. Bubble
Description: bubble
Movement: static

Molecule 2
Description: fragment of Molecule
Movement: Ball

Molecule 3
Description: fragment of Molecule
Movement: Ball

Molecule 4
Description: fragment of Molecule
Movement: Ball

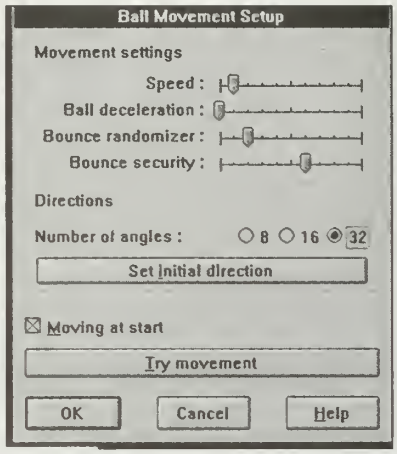
Molecule 5
Description: fragment of Molecule
Movement: Ball

Explosion 6
Description: explosion
Movement: static

Explosion 10
Description: explosion
Movement: static

Backgrounds

Quick Backdrop 1
Quick Backdrop
No Obstacle
Width 672, Height 512



Movement settings for Molecule

Game Objects

Lives 1
Lives Object
Player 1

Score 1
Score object
Player 1

Counter 1
Counter Object

Score...
Text Object

Event List

1. Molecule leaves the
Molecule: Wrap

2. Molecule collides with backgrouna
Molecule: Stop

3. Alterable value A of Helicopter = 0
+ Collision between Helicopter and Molecule
Sound: Play sample flubber
Player 1: Subtract 1 from Number of Lives
Helicopter: Shoot Bubble at speed 100
Destroy

Event 3: Crash into Molecule and lose a life!

4. Number of Explosion 6 < 5
+ Player 1 pressed fire 1
Sound: Play sample sucker2
Shoot Explosion 6 at speed 49

Event 4: This event limits the number of bullets the player can shoot by testing the number of Explosion 6 objects on the screen. If the number is less than 5 and Player 1 has pressed the fire button, it will shoot an Explosion 6. If the number is greater than or equal to 5, it won't shoot.

5. Collision between Explosion 6 and Molecule

Sound: Play sample knockbig
Player 1: Add 100 to Score
Molecule: Destroy
    Shoot Molecule 2 toward "Random direction out of 32" at speed 20
    Shoot Molecule 3 toward "Random direction out of 32" at speed 21
    Shoot Molecule 4 toward "Random direction out of 32" at speed 18
    Shoot Molecule 5 toward "Random direction out of 32" at speed 19
Explosion 6: Destroy

Event 5: If a bullet (Explosion 6) collides with Molecule, it breaks up and shoots fragments (Molecules 2-5) in random directions.

6. Molecule 2 leaves the play area

Molecule 2: Wrap

7. Molecule 3 leaves the play area

Molecule 3: Wrap

8. Molecule 4 leaves the play area

Molecule 4: Wrap

9. Molecule 5 leaves the play area

Molecule 5: Wrap

10. Start of Level

Sound: Play sample fluxmech
Helicopter: Flash during 00'03"
    Set alterable value A to 1
Molecule 2: Destroy
Molecule 3: Destroy
Molecule 4: Destroy
Molecule 5: Destroy
Explosion 6: Destroy
Counter 1: Set Counter to 0

11. Collision between Explosion 6 and Molecule 2

Sound: Play sample knockbig
Player 1: Add 200 to Score
Molecule 2: Destroy
    Shoot Explosion 10 at speed 100
Explosion 6: Destroy

Events 11-14: If Molecules 2-5 are hit by a bullet (Explosion 6), they are destroyed and the player gains points. When these objects are destroyed, they shoot an explosion (Explosion 10) .

12. Collision between Explosion 6 and Molecule 3

Sound: Play sample knockbig
Player 1: Add 200 to Score
Molecule 3: Destroy
    Shoot Explosion 10 at speed 100
Explosion 6: Destroy

13. Collision between Explosion 6 and Molecule 4

Sound: Play sample knockbig
Player 1: Add 200 to Score
Molecule 4: Destroy
Shoot Explosion 10 at speed 100
Explosion 6: Destroy

14. Collision between Explosion 6 and Molecule 5

Sound: Play sample knockbig
Player 1: Add 200 to Score
Molecule 5: Destroy
Shoot Explosion 10 at speed 100
Explosion 6: Destroy

15. Alterable value A of Helicopter = 0
+ Collision between Helicopter and Molecule 2

Sound: Play sample flubber
Player 1: Subtract 1 from Number of Lives
Helicopter: Shoot Bubble at speed 100
Destroy

Events 15-18: These events handle collisions between the Helicopter and the Molecule fragments. In each case, the Helicpoter is destroyed after shooting Bubble, and the player loses a life.

16. Alterable value A of Helicopter = 0
+ Collision between Helicopter and Molecule 3

Sound: Play sample flubber
Player 1: Subtract 1 from Number of Lives
Helicopter: Shoot Bubble at speed 100
Destroy

17. Alterable value A of Helicopter = 0
+ Collision between Helicopter and Molecule 4

Sound: Play sample flubber
Player 1: Subtract 1 from Number of Lives
Helicopter: Shoot Bubble at speed 100
Destroy

18. Alterable value A of Helicopter = 0
+ Collision between Helicopter and Molecule 5

Sound: Play sample flubber
Player 1: Subtract 1 from Number of Lives
Helicopter: Shoot Bubble at speed 100
Destroy

19. Last Helicopter has been destroyed

Create New Objects: Create Helicopter at (288,250)
Helicopter: Flash during 00'03"
Set alterable value A to 1
Counter 1: Set Counter to 0

Event 19: Alterable value A of the Helicopter is used to determine whether the Helicopter is vulnerable or not. When the game starts or a new Helicopter is created, there is a three-second pause while the Helicopter flashes and is not vulnerable (alterable value A = 1). This is controlled

in Event 22 adding 1 to Counter 1 each second. When the Counter reaches 3, Event 21 makes the Helicopter stop flashing (Reappear) and sets alterable value A to 0, which makes the Helicopter vulnerable again.

20. Helicopter leaves the play area
Helicopter: Wrap

21. Counter 1 = 3
Helicopter: Reappear
Set alterable value A to 0

22. Every 1'00"
Counter 1: Add 1 to Counter

23. Number of Molecule 2 = 0
+ Number of Molecule 3 = 0
+ Number of Molecule 4 = 0
+ Number of Molecule 5 = 0
+ Number of Molecule = 0
Game Storyboard Controls: Next Frame

Event 23: If all the molecules are destroyed, the level is completed and the game jumps to the next frame.

24. Molecule 2 is out of the play area
Molecule 2: Destroy

25. Molecule 3 is out of the play area
Molecule 3: Destroy

26. Molecule 4 is out of the play area
Molecule 4: Destroy

27. Molecule 5 is out of the play area
Molecule 5: Destroy

28. Number of lives of Player 1 = 0
Game Storyboard Controls: Jump to frame number 2

29. Helicopter collides with the background
Helicopter: Stop

30. Molecule 2 collides with the background
Molecule 2: Stop

31. Molecule 3 collides with the background
Molecule 3: Stop

32. Molecule 4 collides with the background
Molecule 4: Stop

33. Molecule 5 collides with the background
Molecule 5: Stop

Four: Lunar2 (A Lunar Lander sort of thing)

Here's a Lunar Lander from Mike Perry at Maxis. This is a simple game, but shows some interesting effects. For instance, the way Mike simulates gravity by using a platform type of object (which will naturally fall until it hits a platform) and the Position commands to simulate the thrust from the rocket. This is another good beginner game. A slightly modified version can be found on various on-line services.

Active Objects

Flame
Description: Flame
Movement: Static

LEM
Description: Spaceship
Movement: Platform
Controlled by Player 1

Note: Because LEM is set up for Platform movement, it will fall until it hits a platform. The mountains at the bottom of the screen are platforms. So the object will naturally fall until it hits them, simulating gravity. In the Event Editor, you can see that this fake gravity is overcome by changing the Y position of the LEM when the Spacebar is pressed.

Yellow Runner
Description: Man Running
Movement: taped

(Yellow Runner's path follows the contours of the mountains.)

Explode
Description: Explosion
Movement: static

Twist
Description: Explosion
Movement: static

New Moon
Description: crescent moon
Movement: static

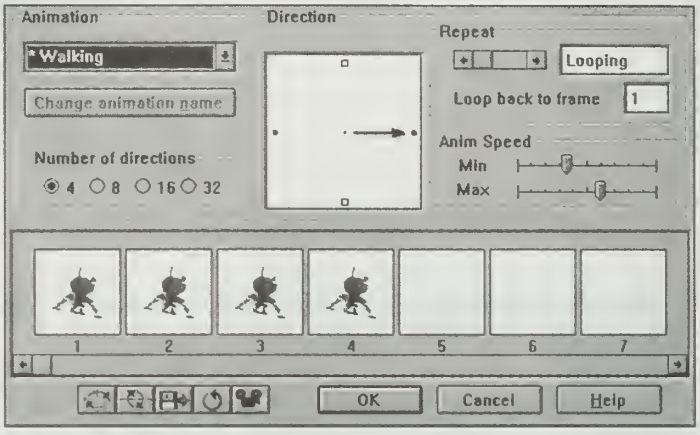
New Super Star

Description: star
Movement: static

Mega Star
Description: star
Movement: static

Active Object 2
Description: pulsating bar
Movement: static

(This is a gradated long bar, size: 4 x 400. A smaller red bar moves from bottom to top to simulate a pulsing barrier. This is accomplished in a looping animation in which the red bar is simply drawn successively higher in subsequent frames.)



LEM animation frames.

Mine
Description: mine
Movement: static

Skater
Description: skating person
Movement: taped

(Same movement as the Yellow Runner, but opposite direction.)

Fake LEM
Description: LEM in a bar of light
Movement: Taped

Note: When movement is started, this object moves slowly upward and out of the play area, giving the illusion that the LEM is being drawn into a beam of light.

Active Object 3
Description: dot for place holder
Movement: static

Explosion 6
Description: pulsating object (fuel low warning)
Movement: static

Fake LEM

Background Objects

Mountains
Type: Platform

Quick Backdrop 1
Type: Quick backdrop object, no obstacle, 642 x 481

Earth
Type: Backdrop object: No obstacle

Game Objects

Score 1
Score object, Player 1
Color: Green

Score
Text object
Color: Green

Counter 1
Counter object
Display as: Numbers
Initial value: 60
Maximum value: 60
Minimum value: 0
Color: Green

Time
Text object
Color: Green

Lives 1
Lives object, Player 1
Display as picture: image of LEM

Lives
Text object
Color: Green

Start a New Game?
Question object
Invisible

Counter 2
Description: Fuel gauge
Display as: Numbers
Initial value: 100
Maximum value: 3000
Minimum value: 0
Color: Red

Fuel
Text object
Color: Red

Event List

1. Repeat while "Space bar" is pressed
+ Y position of LEM >= 30
+ Counter 2 > 1
Sound: play sample fireball
Create New Objects: Create Flame at (-1,16) from LEM
LEM: Stop
Set position at (0,-5) from LEM

Change animation sequence to Stopped
Change animation direction to "down"

Event 1: This event tests first to see if the spacebar is pressed, then to see if the Y position (vertical position) of the LEM is greater than or equal to 30. If these conditions are met, the Flame object is created at the back of the LEM and the LEM's Y position is reset. This condition continues as long as the spacebar remains depressed. Since the LEM is always falling (until it hits a platform), this gives the illusion of a thrustor firing. When the spacebar is released, the LEM will fall unimpeded until it reaches the mountains.

2. LEM leaves the play area at the top
LEM: Stop

3. LEM leaves the play area at the left
LEM: Stop

4. LEM leaves the play area at the right
LEM: Stop

5. LEM leaves the play area at the bottom
LEM: Stop

6. LEM collides with the background
+ Speed of LEM <= 23
LEM Stop

Event 6: This condition reads the speed of the LEM. If the speed is less than or equal to 23, the LEM will stop when it encounters the background. (See Event 13 for what happens when the LEM's speed is greater than 20.)

7. Flame animation Stopped is over
Flame: Destroy

8. Repeat while "Right Arrow" is pressed
LEM: Set position at (1,0) from LEM
Change animation direction to "right"
Change animation sequence to Walking

9. Repeat while "Left Arrow" is pressed
LEM: Set position at (-1,0) from LEM
Change animation direction to "left"
Change animation sequence to Walking

Events 8 and 9: Pressing the arrow keys causes the LEM to move to the left or right.

10. Every 01'00"
+ random(4) = 0
Create New Objects: Create Yellow Runner at (-5,438)

Event 10: This event uses the timer and a random number generator to generate Yellow Runners at irregular intervals. (See Event 28 does the same thing with the Skater.)

11. Collision between Yellow Runner and Flame
Sound: Play sample help (uninterruptable)
Create New Objects: Create Explode at (0,0) from Yellow Runner
Player 1: Subtract 200 from Score

Yellow Runner: Destroy

Event 11: Yellow Runner is destroyed by Flame. Since this is not a good thing, Player loses 200 points from score.

12. Explode animation Stopped is over

Explode: Destroy

13. LEM collides with the background

+ Speed of LEM > 20

Sound: play sample crash (uninterruptable)
Create New Objects: Create Flying Rubble at (0, 0) from LEM
Player 1: Subtract 1 from Number of Lives
LEM: Destroy
Shoot Explode at speed 48
Shoot Twist toward (number 4) at speed 100
Shoot Twist toward (number 12) at speed 100

Event 13: Bad luck. The LEM collides with the background too fast and blows up. Player 1 loses a life and, if the Player still has any lives left, a new LEM is created.

14. Speed of LEM = 0

+ Every 1'00"

Sound: Play sample blip2
LEM: Add 1 to alterable value A

Event 14. When the LEM has landed, it can only stay in one place for three seconds. This event adds 1 to alterable value A each second.

15. Alterable value A of LEM = 3

Sound: Play sample crash (uninterruptable)
Create New Objects: Create Flying Rubble at (0, 0) from LEM
Player 1: Subtract 1 from Number of Lives
LEM: Destroy
Shoot Explode at speed 48
Shoot Twist toward (number 4) at speed 100
Shoot Twist toward (number 12) at speed 100

Event 15: After sitting still for three seconds, the LEM blows up (see Event 14). In Event 16, alterable value A of the LEM is set to zero every time it moves.

16. Speed of LEM > 0

LEM: Set alterable value A to 0

17. Collision between Yellow Runner and LEM

Sound: Play sample blip1 (uninterruptable)
Player 1: Add 150 to Score
Yellow Runner: Destroy

Event 17: If a Yellow Runner collides with the LEM, the player gains 150 points.

18. Yellow Runner leaves the play area on the right

Yellow Runner: Destroy

19. Every 01'00"

+ Number of lives of Player 1 > 0
    Counter 1: Subtract 1 from Counter

20. Counter 1 = 0
+ Run this event once
    Sound: Play sample whoosh06 (uninterruptable)
    Create New Objects: Create Fake LEM at (0, 0) from LEM
    LEM: Destroy
    Fake LEM: Set alterable value A to 1
        Start

Events 19 & 20: The timer (Counter 1) counts down each second as long as the Player still has at least one life. Counter 1 is set with an initial value of 60 (in the Level Editor).

21. Number of lives of Player 1 = 0
+ Number of Flying Rubble = 0
    LEM: Destroy
    Start a New Game?: Ask question

22. Start a New Game?: correct answer
    Game Storyboard Controls: Jump to frame number 1

23. Start a New Game?: bad answer
    Game Storyboard Controls: End the game

24. Start of Level
    Player 1: Set Number of lives to 3
    LEM: Set alterable value A to 0
    Fake LEM: Destroy
    Flying Rubble: Destroy

25. Collision between LEM and Active Object 2
    Sound: play sample crash (uninterruptable)
    Create New Objects: Create Flying Rubble at (0, 0) from LEM
    Player 1: Subtract 1 from Number of Lives
    LEM: Destroy
        Shoot Explode at speed 48
        Shoot Twist toward (number 4) at speed 100
        Shoot Twist toward (number 12) at speed 100

26. Number of Flame = 0
    LEM: Change animation sequence to Stopped

27. Skater leaves the play area on the left
    Skater: Destroy

28. Every 1'00"
+ random (4) = 0
    Create New Objects: Create Skater at (655,420)

29. Collision between LEM and Skater
    Sound: Play sample pop5 (uninterruptable)
    Player 1: Subtract 150 from Score
    Skater: Destroy

30. Collision between Flame and Skater

Sound: Play sample help (uninterruptable)
Create New Objects: Create Explode at (0,0) from Skater
Player 1: Add 200 to Score
Skater: Destroy

Events 29 & 30: The object is to hit the Skater with the Flame and prevent the LEM from being hit by a Skater. The opposite conditions to those of the Yellow Runner.

31. Collision between Yellow Runner and Skater

Sound: Play sample help (uninterruptable)
Create New Objects: Create Explode at (0,0) from Skater
Player 1: Subtract 200 from Score
Yellow Runner: Destroy
Skater: Destroy

32. Alterable value A of Fake LEM = 1

+ Current frame of Fake LEM = 0

Sound: Play sample 501

33. Fake LEM is out of the play area

+ Counter 1 = 0

Start a New Game?: Ask question

34. Number of LEM = 0

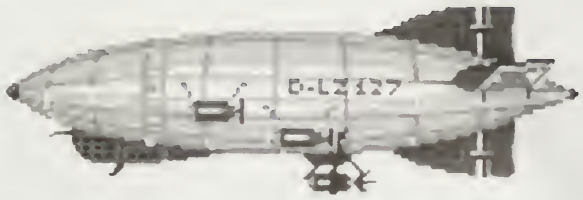
+ Number of Lives of Player 1 > 0
+ Counter 1 > 0
+ Number of Flying Rubble = 0

Create New Objects: Create LEM at (317, 159)

35. Flying Rubble leaves the play area

Flying Rubble: Destroy

Note: For variety, try adding another object, say a satellite that crosses the screen occasionally. If the LEM object collides with this object, add something to Counters 1 and 2, thereby extending the time and fuel tank and letting the player continue the game longer.



Five: Soccer Death (When the imagination runs wild!)

by Will Wright

This whimsical soccer game is interesting, if for no other reason than it uses extremely simple programming to achieve an enjoyable end result. Look at the simple events that govern the movement of the ball when it's "kicked." The actual game is pretty fun to play, despite its SIMpliCITY. Moreover, it's a chance to look at Will Wright's sense of humor. Need I say more?

Active Objects

Runner
Description: Runner from Sports and Players library
Movement: eight directions
Controlled by: Player 1

Orange Ball
Description: Ball
Movement: ball

Flaming Arrow
Description: From Warriors library
Movement: static

Runner 3
Description: Blue Runner Top from Sports and Players library
Movement: ball

Skater
Description: Skater image (modified with blood splat) from Sports and Players library
Movement: static

Goal L
Description: Left goal
Movement: static

Goal R
Description: Right goal
Movement: static

Runner 4
Description: White player
Movement: ball

Zeppelin
Description: Blimp
Movement: ball

Flame
Description: Muzzle flash
Movement: ball

Bullet
Description: Red dot
Movement: ball

Twist 2
Description: From Special Effects library
Movement: static

Bomb
Description: Bomb
Movement: ball

Crater
Description: Crater
Movement: static

Backdrop Objects:

Soccer Field
Backdrop object, No obstacle

Game Objects

ZepCount
Counter Object
Hidden

GunCount
Counter Object
Hidden

MyScore
Counter Object
Display as Numbers
Initial value: 0
Minimum value: 0
Maximum value: (max)

CompScore
Display as Numbers
Initial value: 0
Minimum value: 0
Maximum value: (max)

Action on the soccer field

Event List

1. Start of Level

Player 1: Set Score to 0
Zeppelin: Destroy
Flame: Destroy
Bullet: Destroy
Twist2: Destroy
Bomb: Destroy
MyScore: Set Counter to 0
CompScore: Set Counter to 0

2. Runner leaves the play area

Runner: Bounce

3. Collision between Runner and Orange Ball

Sound: Play sample ball8
Orange Ball: Look at (0,35) from Runner
Set speed to 50

Event 3: When Runner "kicks" the Orange Ball, it heads off in a direction 35 pixels below the Runner at a speed of 50.

4. Runner 3 leaves the play area

Runner 3: Look at (52,-12) from Orange Ball

5. Every 00'30"

Runner 3: Set speed to 17
Look at (-1,0) from Orange Ball
Runner 4: Set speed to 17
Look at (-1,0) from Orange Ball

Event 5: Every 30 seconds, Runners 3 and 4 will look almost directly at the ball and move at a speed of 17 toward it.

6. Collision between Runner 3 and Runner 3

Runner 3: Bounce

7. Upon pressing the "Space bar"

Sound: Play sample whiplash
Runner: Shoot Flaming Arrow at speed 59

Event 7: Player 1 can shoot Flaming Arrows at the other runners. Event 8 shows what happens to the opposing team players when hit by Flaming Arrows.

8. Collision between Runner 3 and Flaming Arrow

Sound: Play sample screamm3 (uninterruptable)
Create New Objects: Create Skater at (0,0) from Flaming Arrow
Create Runner 3 at (12,25)
Flaming Arrow: Destroy
Runner 3: Destroy

9. Last Runner 3 has been destroyed

Create New Objects: Create Runner 3 at (28,32)
Create Runner 3 at (614,36)

Create Runner 3 at (28,444)
Create Runner 3 at (606,442)

Event 9: If all the opposition has been destroyed, then three new players will enter the field at different positions and converge on the ball.

10. Orange Ball leaves the play area on the left

Orange Ball: Set direction to (random between 4 and 28 (centered around zero))

Events 10-13: If the Orange Ball leaves the playfield, its direction is set to a random direction, depending on which side of the field it is on.

11. Orange Ball leaves the play area on the right

Orange Ball: Set direction to (random between 12 and 20 (centered around 16))

12. Orange Ball leaves the play area on the top

Orange Ball: Set direction to (random between 20 and 28 (centered around 24))

13. Orange Ball leaves the play area on the bottom

Orange Ball: Set direction to (random between 12 and 4 (centered around 8))

14. Collision between Orange Ball and Goal L

Sound: Play sample crowdchr
Orange Ball: Destroy
MyScore: Add 1 to Counter

Events 14 & 15: If the Orange Ball intersects one of the goals, 1 is added to the appropriate counter.

15. Collision between Orange Ball and Goal R

Sound: Play sample crowdboo
Orange Ball: Destroy
CompScore: Add 1 to Counter

16. Collision between Runner 4 and Runner 4

Runner 4: Bounce

17. Collision between Runner 3 and Runner 4

Runner 3: Bounce
Runner 4: Bounce

18. Collision between Orange Ball and Runner 3

Sound: Play sample ball8
Orange Ball: Set speed to 40
Look at (28,21) from Runner 3

Events 18 & 19: Normally, when a Runner 3 kicks the ball, it tries to kick it more or less toward another Runner 3. This simulates passing the ball. However, Event 19 sets a condition where the Runner appears to kick the ball toward the bottom right corner of the playfield.

19. Collision between Orange Ball and Runner 3

+ Every 00'06"

Sound: Play sample ball8
Orange Ball: Look at (624,229)
Set speed to 40
Bounce

20. Upon pressing "Q"

Game Storyboard Controls: End the game

21. ZepCount = 30

Create New Objects: Create Zepellin at (716,88)
Zeppelin: Set direction to left
Start
Set speed to 5
ZepCount: Add 1 to Counter

Event 21: When the counter ZepCount reaches 30, a new Zeppelin is created off screen and starts moving across the screen. ZepCount is incremented every half second (see Event 26), so the Zeppelin is created about every 15 seconds once the last one leaves the play area (and ZepCount is reset to zero in Event 27).

22. Zeppelin enters the play area

Sound: Play sample laughevl (uninterruptable)

23. GunCount = 2

Flame: Destroy
GunCount: Set Counter to 10

When GunCount reaches 2, the Flame is destroyed (and the Zeppelin stops shooting). GunCount is set to 10. It is set to zero every four seconds when the Zeppelin is in the play area. So the gun shoots for about a second, then stops, then shoots four seconds later. To understand this logic, look at Events 23, 24, 26, and 28.

24. Zeppelin is in the play area

+ Every 4'00"

Sound: Play sample machgun2 (uninterruptable)
Create New Objects: Create Flame at (0,1) from Zeppelin
Flame: Set speed at 5
Look at (-66,0) from Zeppelin
GunCount: Set Counter to 0

Event 24: Every 4 seconds, create Flame at X = 0, Y = 1 from the Zeppelin and play the mach-gun2 sound sample. Set the speed of the Flame to match the Zeppelin, and have the Flame look X = -66 from the Zeppelin. Set the counter GunCount to zero. Event 28 reads the presence of the Flame and creates a Bullet at X = -1, Y = 1 from Flame.

25. Last Orange Ball has been destroyed

Create New Objects: Create Orange Ball at (318,228)
Orange Ball: Stop

26. Every 00'50"

ZepCount: Add 1 to Counter
GunCount: Add 1 to Counter

Event 26: Every half second, the game adds one to ZepCount and GunCount.

27. Zeppelin leaves the play area

Zeppelin: Destroy
ZepCount: Set counter to 0

28. Every 00'20"

+ Number of Flame = 1

Create New Objects: Create Bullet at (-1,1) from Flame

Event 28: Every 2/10ths of a second, when the Flame is present, the game creates a bullet near the Flame. Bullets have ball movement and are set to move downward in a random direction ranging from direction 20 to direction 28.

29. Bullet is out of the play area

Bullet: Destroy

30. Collision between Bullet and Runner 3

Sound: Play sample screamm3 (uninterruptable)
Create New Object: Create Skater at (1,0) from Runner 3
Runner 3: Destroy
Bullet: Destroy

Events 30 & 31: If a Bullet hits a Runner3 or Runner4, it is destroyed and replaced by the modified image of the Skater.

31. Collision between Bullet and Runner 4

Sound: Play sample screamm3 (uninterruptable)
Create New Object: Create Skater at (1,-2) from Runner 4
Runner 43: Destroy

32. Collision between Orange Ball and Skater

Skater: Destroy

Event 32: If the Orange Ball hits a dead body (Skater), the body is destroyed. Good for cleaning up the playfield.

33. Last Runner 4 has been destroyed

Create New Objects: Create Runner 4 at (621,28)
Create Runner 4 at (622,451)
Create Runner 4 at (17,452)

34. Number of Orange Ball in zone (235,249) to (404,394) = 1

+ Every 00'20"
+ Zeppelin is in the play area
+ Number of Bomb < 4

Sound: Play sample whistle5 (uninterruptable)
Create New Objects: Create Bomb at (58,2) from Zeppelin

Event 34: This is a strange event that first looks for the Orange Ball in a particular area of the playfield, then, if the ball is found there, the Zeppelin is in the area, and there are fewer than four Bombs already, then the Bomb object is created at X = 58, Y = 2 from the Zeppelin.

35. Collision between Runner 3 and Bomb

Sound: Play sample boom3 (uninterruptable)
Create New Objects: Create Crater at (0,-2) from Runner 3
Create Twist 2 at (2,1) from Runner 3
Bomb: Destroy

Events 35 & 36: If a Bomb hits a Runner 3 or Runner 4, the runner is destroyed and replaced by the explosion animation Twist2 and the Crater. In Event 37, Twist 2 is destroyed when its animation Stopped is completed.

36. Collision between Runner 4 and Bomb
Sound: Play sample boom3 (uninterruptable)
Create New Objects: Create Crater at (0,0) from Runner 4
Create Twist 2 at (0,-1) from Runner 4)
Bomb: Destroy

37. Twist 2 animation Stopped is over
Twist 2: Destroy

38. Bomb is out of the play area
Bomb: Destroy

39. Collision between Twist 2 and Runner 4
Runner 4: Destroy

40. Collision between Twist 2 and Runner 3
Runner 3: Destroy

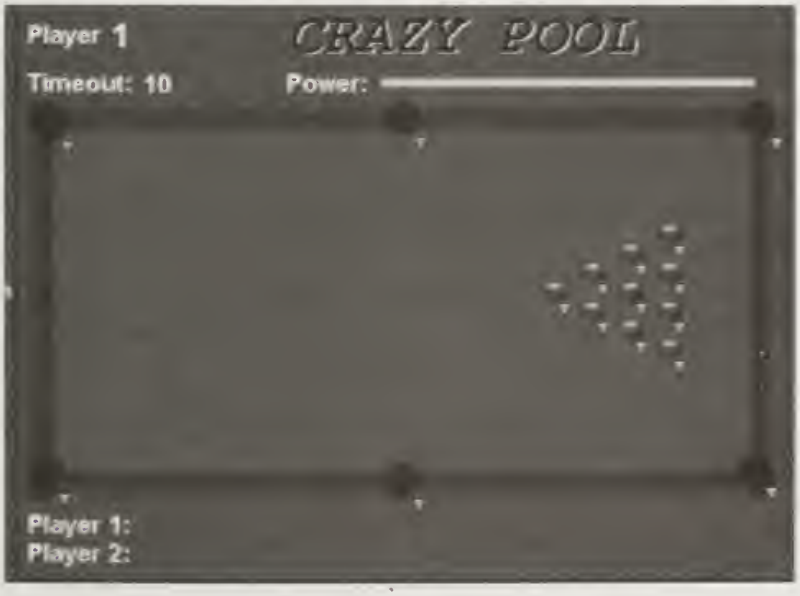
41. Collision between Orange Ball and Crater
Crater: Destroy

42. Collision between Runner 4 and Orange Ball
Sound: Play sample ball8
Orange Ball: Set speed at 40
Look at (35,-23) from Runner 4

43. Orange Ball is out of the play area
Create New Objects: Create Orange Ball at (318,227)
Orange Ball: Destroy

Six: Crazy39 (Pool Game) & Hungry11 (Hedgehog Game)

Here are two additional games, both of which come with KNP. I've included some comments on the events in the Event List. Since these games comes with KNP, I haven't reprinted the events themselves. Open KNP and load in Crazy39 or Hungry11, then move into the Event List to follow along with this analysis. Hopefully, these notes will help you understand how these two games work. Hungry11 is particularly tricky, and worth examining for that reason.



Crazy39

Event 1: This event initializes the game. First it plays some music, then it sets the speed of Balls to zero, stopping the motion of all the balls on the table. Next it changes the animation of the Cue Ball to Appearing and sets its position on the table. It makes the Pocket object invisible and sets alterable values A and B of Options to 1. It sets the direction for the Pulsing Player object (to display the current player) and sets the counter Player to 1. Finally, it sets counter Timeout to 20 and counter Ball count to the number of balls currently in the play area.

Event 2: This event adds the current value of alterable value A of Options to the counter called Power every five hundredths of a second. Since Power is a horizontal bar, it makes the bar fill up from left to right.

Events 3 & 4: These events set Options alterable value A to 1 or -1. This alterable value is used in Event 2 to change the value of the counter called Power. Obviously, when this value is one, the counter value will increase. When it is -1, the counter value will decrease.

Event 6: If the Timeout counter reaches zero, then the Cue Ball is automatically shot. Its speed is set to twice the current value of the Power counter. Its alterable value A is set to

0. The Target's position is set to the current position of the mouse, and Options alterable value B is set to 21. Finally, the Timeout counter is set to -1.

Event 7: This event does exactly the same things as Event 6, but it does so when the player clicks the mouse anywhere on the table.

Event 8: In Events 6 and 7, Options alterable value B is set to 21. In Event 8, that condition is used to set the Cue ball's direction toward the Target object (which effectively sends the Cue ball toward the point where the player clicked or where the mouse was when the timer ran out). Finally, alterable value B of Options is set to 2.

Event 9: In the previous event, alterable value B of Options was set to 2. In this event, that condition is read when the Cue ball reaches the Target. The Target is then repositioned out of the play area.

Event 12: If the Cue ball collides with a Pocket, it is moved out of the play area and a new object, Pocketed cue ball, is set at (0, 0) from the Pocket. The Pocketed cue ball is destroyed in the same event, but since objects are not destroyed until the end of the cycle, the animation of the Pocketed cue ball is played first. Finally, alterable value B of Options is set to 3 and alterable value C is set to [3 - value("Player")], which effectively sets it to 1 if the current player is Player 2, and to 2 if the Current player is Player 1.

Event 13: This condition handles what happens when the Cue ball is stationary and is struck by one of the Balls objects. A sound is played and the ball bounces. The Cue ball's alterable value A is set to 1 and its speed and direction are set to that of the ball that struck it.

Event 14: This event handles what happens when the Cue ball strikes a ball and the ball is stationary. Basically, the ball's speed and direction are set to that of the Cue ball.

Event 15: If the Cue ball and a ball strike each other and the ball is in motion, both ball and Cue ball bounce, and the Cue ball's alterable value A is set to 1.

Event 16: When the balls hit each other, they bounce and their speed is set to a random number. This explains why the balls sometimes seem to pick up speed when they hit each other.

Events 17 & 18: If a ball hits a Pocket object, the active player's lives object is incremented by 1. The ball is set at (0, 0)from the Pocket and destroyed. At this point alterable value A of Options is set to 4.

Events 19 & 20: These events occur at the end of a shot if the player hasn't pocketed a ball. (If the player does pocket a ball, then alterable value B of Options is set to 1, and the shooting sequence begins again.)

Events 22 & 23: These events wait until the Cue ball is stopped, then change the current player and reset the shot sequence.

Event 24: If the player sinks a ball, this condition resets the shot sequence.

Events 25-31: These events occur when a player has scratched (shot the Cue ball into a pocket). If the player has already scored (sunk any balls), then the player loses one ball (one "life") and the Cue ball is returned to the table, the turn switches to the other player and the shot

sequence is restarted. If the player has not sunk any balls (Lives = 0), then the Cue ball is replaced on the table, the turn switches to the other player, and the shot sequence is restarted.

Events 32-35: These events occur when all the balls have been sunk. Basically, it determines who has the highest score (more "Lives") and chooses the appropriate paragraph from the Text object. In the case of a draw (Event 33), the paragraph states that the game is a draw. Otherwise, it states the winning player. Then the game restarts, once the left button of the mouse is clicked.

Events 36-37: These events control the appearance (and disappearance) of a tongue (called Tong) every ten seconds at a random ball.

Hungry11 (Hedgehog Counting Game)

This game comes with KNP. It was created by Europress and involves some very clever programming. The key to this game is the use of alterable values, especially alterable value A of the Status object. Although this game seems very simple on the surface, it is somewhat complex to analyze. One way to watch how the logic works in this game is to create some extra Counter objects and place them on the screen. Then set an event using the Always condition and set the counter(s) to various values you're interested in watching. By seeing how the numbers actually change and comparing those changes to the event list, you can understand how the game is operating.

Event 1: At the start of the level, alterable value A of Status is set to zero, which starts the level setup operations. Alterable value C of both players' hedgehogs is set to a specific number. This will be used later (in Events 47 & 48) to bring the hog to the middle of the track as it approaches the worm at the end of a round. The counter called Player is set to the current score of Player 1. This is to allow the game to know which player should start the round as the score of a player character is kept from one frame to another. This number is set at the end of the round in Events 41 & 42.

Event 2: This reads the current value of the counter Player (as set in the previous event) and sets the direction of the Pulsing Player object to display the correct player number.

Events 3-7: These events simply animated the hedgehogs in a pattern to begin the game using the timer and having them all stand up in sequence. In Event 7, alterable value A of Status is set to 1, which starts the setup for the game.

Event 8: Before each turn, alterable value A of each hedgehog is set to the current value of

alterable value B. This is zero at the beginning of the game, but after a turn, it may not be if that hedgehog was chosen in the previous turn. (By turn, here we mean each number selection by a single player. Once the game shifts to another player, these values are reset.)

Event 9: This event sets the two numbers that will appear on the screen. Each number can be between 1 and 7. These numbers are set after a second has passed when Event 10 kicks in. At that point, alterable value A of Status is set to 3 and Event 9 is no longer true.

Event 11: On each pass through the script, if alterable value A of Status is 3, then Button Status alterable value A is set to 1. Since each move by a player sets Button Status alterable value A to zero, this is constantly repeated.

Events 12 & 13: These conditions compare the sums of the two randomly created numbers with the value of Button Status alterable value C. If they are equal, then the OK/Pass button is set to OK. If they are not equal, then the OK/Pass button is set to Pass.

Events 14-31: These events control what happens when a player clicks on a hedgehog. The first condition checks if a particular hedgehog has been clicked on. The next condition checks to see if alterable value A of Status is 3 (which means that the previous setup steps have been completed). The next condition checks to see that alterable value A of Button Status is less than 2. Finally, the next two conditions check the status of the hedgehog's alterable values A and B. If B = 1, then the hedgehog has been clicked on once already and is reset to its original position. This is used if the player changes his or her mind and wants to change a move. The second event of each pair controls this condition, checking to see if alterable value B is 1 (i.e. Event 15).

The first event (i.e. Event 14) handles the condition that occurs when the user first clicks on a hedgehog. If all conditions are met, then several values are changed.

- *Button Status alterable value A is changed to zero. This basically makes the current event conditions false, a useful trick in KNP to be sure an event doesn't repeat.*
- *Button Status alterable value B is incremented by 1.*
- *And the value of the hedgehog clicked on is added to Button Status alterable value C.*
- *Alterable value B of the hedgehog clicked is set to 1 and its animation direction is changed to "up" (which sets the hedgehog in the bowed position indicating that it has been selected.*
- *The value of the hedgehog clicked on is added to both Player 1's hog and Player 2's hog.*

Event 32: This is how to end the game, by clicking in a designated zone.

Events 33 & 34: If the player has selected numbers that add up correctly, then clicks on OK, alterable value A of Status is set to 31 (see Events 75 & 76) and alterable value A of the player's hog is set to the current value of B times 2. (Value B is equal to the sum of the two hedgehogs picked.) This sets the value of A to greater than zero (see Events 43 & 44).

Events 37-38: If alterable value B of Status equals 45, then all nine hedgehogs have been selected in a single turn, which is an automatic win condition for the current player. Alterable

value A of the player's hog is set to 1000. (See Events 43 and 44 for how the hog is moved.)

Events 39 & 40: If the player presses Pass, then alterable value A of Status is set to 5. Then one of these two conditions becomes true. The Player counter is set to the other player (1 or 2), and alterable value A of Status is set to zero, which starts the whole turn setup procedures going again, starting with Event 3.

Events 41 & 42: If Alterable value A of Status equals 10, then the game has been won. If the player clicks on the OK button at the end of a game, then the game restarts and the next player becomes the current player. Meaning that losers start the next round. The score of Player 1 is changed in these steps because only score and lives information is carried over from one frame to the next. When the level restarts, all counters and alterable values will be lost. So this is the only way to carry the information about which player should start the next round when the frame restarts.

Events 43 &44: These events move the player's hogs based on the value of alterable value A, subtracting 1 from that value until it is no longer greater than zero.

Events 47 & 48: As the players' hogs approach the worm, they begin to head toward the middle of the track. By reading the number of alterable value C (which was set at the beginning of the level in Event 1), the program keeps moving the hog either up or down to achieve this effect.

Events 49 & 50: These events read the position of the players' hogs and, if they've made it to the finish

(X pos >= 468) then alterable value A of Status is et to 10, the player's hog is made invisible and its alterable value A is set to 0, the Worm is destroyed after the Scoffing Hedgehog figure is created near the Worm. The OK/Pass button is set to the right (OK).

Events 51-57: These events control the animation sequences of the winning hedgehog eating the worm.

Events 58-63: These events create the random "cheering" by the numbered hedgehogs during the game winning sequence.

Event 64: This event creates the Eyes object in the hollow tree at random intervals.

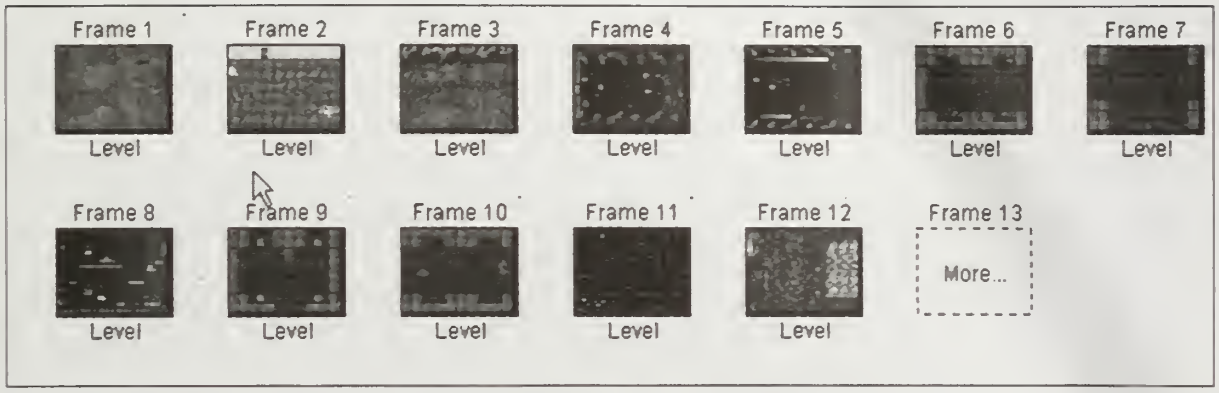
Event 65: Here is where the timer is set. If a player doesn't make a move in 10 seconds, any hedgehog picked during that sequence is set back in its original position. This is read by looking at alterable value B of that hedgehog. If it is 1, then the hog was picked. If not, then the condition isn't true.

Events 66-74: These events read the timer in Reset Countdown. If a hedgehog was chosen during a turn (hedgehog's alterable value B equals 1) and the timer reaches 10, then it is reset to its upright position (animation to the right).

Events 75 & 76: When a player presses Pass and his/her hog has moved (alterable value A = 0), these events start the reset sequence (by setting alterable value A of Status to 1) and change the active player.

Seven: Normal's Quest (Frame One)

Starting Point



The first twelve frames of Normal's Quest

This game was one I wrote to learn about how KNP worked. It also illustrates a variety of techniques and ideas for designing games in KNP. It took a lot of experimentation, mistakes, and bug chasing to get it to a playable state.

One of the keys to this game is its use of global variables. Because there are twelve separate frames of action in the game, I needed to be able to track a lot of information between frames. To accomplish this, I created a main character for the player to use and three other objects (I arbitrarily used Gangster and Pint of Suds objects just because it was so absurd) to which I assigned players 2, 3, and 4. These other "player" objects are placed outside the play area during the game and so can't be seen. In addition, they are set for eight-direction movement, but all directional options are turned off.

Using the extra player objects, I was able to use their score and lives variables to track information in the game. Here's a list of the variables and how they were used. As you'll see, most variables served more than one purpose and the mod function built into KNP is used to extract the necessary information:

Player 1 Lives: Shield Level (determines maximum number of hit points the player can have). This variable ranges from 1 to 3. In addition, this variable is used to track the current frame number when the player presses F1 and jumps to the Help System frame (Frame 14).

Initial Value: 1

Example: Suppose the current shield level is 2 and the current frame is 4. This means the player has two popsicles and a maximum number of hit points of 200.

If the player hits F1, the number 40 is added to Player 1 Lives. The number now reads 42. The game jumps to Frame 14 (the Help System frame). When the player leaves Frame 14 (by pressing F2), the game divides the number by 10 and reads the result. In this case, 42/10 = 4. (Remember, KNP always rounds everything off to an integer. This is important to keep in mind when doing math in KNP.) Finally, Player 1 Lives is reset to its original value by taking the mod 10 of the current number. 42 mod 10 = 2.

Player 1 Score: This value tracks the player's hit points. The player starts with 100 HP. During the game, the player may encounter special objects that allow this number to increase. (The popsicle object represents the hit points. Each popsicle represents up to 100 points. Therefore, when the Shield Level has reached 3, the player has three popsicles and a maximum of 300 HP.)

Initial Value: 100

Player 2 Lives: This variable handles two tasks. The first is to track where the player has come from when moving from frame to frame. In this way, if the player's character leaves a frame from the right, it will enter on the left side of the next frame. Also, this variable handles the price of the Magic Sword, which will be either 5000 or 6000 gold.

Initial Value: 10

Example: The ones digit holds the information about movement from frame to frame. For instance, when Normal Guy leaves the play area at the top — position 1 being the top and counting clockwise, he arrives at the next frame in position 3 (the bottom). This value is added to Player 2 Lives with the expression Set lives to lives("Player 2") / 10 * 10 + 3. In the next frame, in a Start of Level event, it reads Lives ("Player 2") mod 10 = 3.

The price of the Magic Sword is kept in the tens digit. When the Wizard initially makes the offer, the price is 5000 gold. Since the starting value of Player 2 lives will be 10, I added 40 to Player 2 Lives. Dividing Player 2 Lives by 10 will yield the answer 5. If the player kills the Wizard's cat, the Wizard raises the price to 6000 gold, and I add another ten to Player 2 Lives. Now Player 2 Lives / 10 = 6. These conditions are used in Frame 2 to determine how much gold the player must have for the Wizard to sell the Magic Sword.

Player 2 Score: This tracks how much gold the player has. Very simple.

Initial Value: 100

Player 3 Lives: This tracks whether the player has obtained certain inventory items at specific places in the game. It is used primarily inside the cave to read whether the player has obtained certain keys and other objects.

Player 3 Score: This variable tracks both the weapon level and the current active weapon of the player. At the beginning of the game, once the player has obtained the sword, this value reads 11. There are two additional weapons in the game, the Flame Thrower and the Magic Sword. Once the player has obtained the Flame Thrower, Player 3 score is automatically set to 21. Now, when the player presses "A", the current weapon switches to the Flame Thrower and the value of P3 Score is set to "Player 3 Score" /10 * 10 + 2 (which in this case would be 22). Later, when the player obtains the Magic Sword, the value of P3 Score is set to 31. Now, when the player presses "A", the current weapon becomes the Flame Thrower and the same formula is used, but this time the result is 32. Pressing "S" selects the Magic Sword and sets the value of P3 Score to 33. You can see from this that the ones digit represents the current weapon in use while the tens digit represents the highest weapon level the player has obtained. This becomes clearer when you look at the code in the Event List.

Initial Value: 10

Player 4 Lives: This variable is used to track the status of various parts of the game. In the first frame, it tracks whether the player has obtained the gold from the chest (to be sure the player can't come back and keep stocking up on gold by leaving the frame and returning). This is

tracked in the hundreds digit of the number. In the tens digit, P4 Lives sets whether the dinosaur egg in Frame 3 has been opened and the dinosaur is loose. This way, if you open the egg, the dinosaur will always be in the North Field level, at least until you kill it. The ones digit of P4 Lives is used to track various states of the game at the end when the player reaches the Wizard's House and has to do various tasks for the Wizard. This is also clearer to see when looking at the actual Event Lists for Frames 2 and 12.

Initial Value: 3

Player 4 Score: This variable tracks the player's score. The score is actually how I deal with lives for the player. If the player's score reaches zero, the game restarts. Every time the player's hit points fall to zero, the current frame restarts and 1000 points are deducted from the P4 Score. However, there are lots of ways to get more points, so the player probably won't lose all his or her lives by having the score drop to zero. I've also built in a cheat to some frames. If the player holds down the "L", and the "I" keys on the keyboard, then presses "V", and the current score is 2000 or less, then the current score is set to 10,000 points.

Initial Value: 5000 (which equals 5 lives)

Normal's Quest: Frame 1

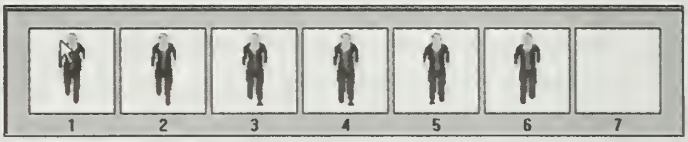
Certain aspects of the game are consistent from one frame to the next. For instance, the movement and weapon handling routines are the same in almost every frame. Where this is the case I've omitted some of the events in subsequent chapters, but referred to their event numbers in this chapter.

Also note that no graphics were imported into the game other than those that come with the CD ROM version of KNP for Windows. Some of the objects' animations were modified, however, as noted below.

Unless otherwise noted, movement of Active Objects in all chapters on Normal's Quest is Static.

Active Objects

This first group of objects is common to every frame in Normal's Quest. I'll call these the Standard Objects:



Standard Objects

Some added animations for the Normal Guy object. Note the position of the Action Point in the picture on the lower right.

Normal Guy
Description: Fully animated man from Fully Animated Characters library
Movement: eight directions
Controlled by: Player 1
Note: During the game, several animations were modified or created for Normal Guy. See the pictures.

Shield, Shield 2, Shield 3
Description: Ice Candy object from Possessions library

Note: Some images of these objects were modified to look as if they had been eaten. Each image was placed in a different direction of the Stopped animation. See the pictures on the next page.

Examples of the Shield object

Sword
Description: Sword from Hand Weapons library

Note: Some animation frames were added to enhance the attack sequence. See the pictures.

Sword Icon
Description: Same as Sword

Glooper
Description: Wormy creature from Special Effects library

Laser 4
Description: Laser 4 from Spaceship Weapons library

Laser Icon
Description: Same as Laser 4

Fireball 2
Description: Fireball 2 from Spaceship Weapons library
Movement: ball

Magic Sword
Description: Missile

Note: This was originally Missile 2 from the Spaceship Weapons library. It's being used as a smoking sword by turning it around.

M. Sword Icon
Description: Same as Magic Sword

Gangster

Description: Gangster from People library
Movement: Eight directions (none selected)
Controlled by: Player 2

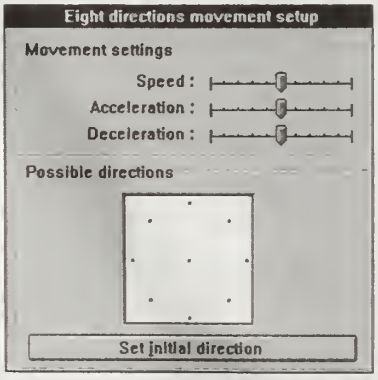
Note: This is the Player 2 character. It is always outside the play area and is only used for its score and lives variables.

Pint of Suds
Description: Pint of Suds object from Possessions library
Movement: Eight directions (none selected)
Controlled by: Player 3

Note: This is the Player 3 character. It is always outside the play area and is only used for its score and lives variables.

Pint of Suds 2
Description: Pint of Suds object from Possessions library
Movement: Eight directions (none selected)
Controlled by: Player 4

Note: This is the Player 4 character. It is always outside the play area and is only used for its score and lives variables.



Movement setting for Gangster, Pint of Suds, and Pint of Suds 2

From this point on, the objects listed are unique to this frame of Normal's Quest. Some of these objects may occur in other frames, but they do not occur in every frame. I call these Frame Specific Objects. All of these objects can be found in the libraries that come with KNP.

Frame Specific Objects

Armor 2
Description: Breast Plate from Collectable Items library

Arrow
Description: Arrow from Pinball Game

Note: The arrow object was made much larger.

Alien 18
Description: Alien 18 from Aliens library
Movement: Ball

Wallop
Description: From Special Effects library

A Tree1
Description: Tree 1 from Heaven, Earth, Fire and Water library

Dot 6
Description: Very small brown dot

Note: Dot 6 is hidden in the background and acts as a positioning point for the Gymnasia objects.

Gymnasia

Description: From Characters library

Amazon
Description: Bow-totin' warrior woman from Characters library

Amazon Arrow
Description: From Characters library

Mega Star
Description: From Heaven, Earth, Fire and Water library

Blizzard
Description: From Heaven, Earth, Fire and Water library (used as appearing effect)

Lightning 2
Description: From Heaven, Earth, Fire and Water library

Chest of Gold
Description: From Collectable Items library

Magic Rock
Description: From Heaven, Earth, Fire and Water library

Note: Used the rock in the Heaven & Earth library, then made it an active object.

Little Bubbles
Description: From Heaven, Earth, Fire and Water library

Cornertwist
Description: From Collectable Items library

Explosion 10
Description: From Explosions library

Wizhouse
Description: Round hut

Note: This was originally called Wigwam from the Homes & Buildings library.

Appear
Description: From Special Effects library

Backdrop Objects

Mud & Mud 2
Description: Background of varied mud
Backdrop Object, no obstacle

Tree 1
Description: From Heaven, Earth, Fire and Water library
Backdrop object, obstacle

Rock
Description: From Heaven, Earth, Fire and Water library
Backdrop object, obstacle

Game Objects

***Score**
Text Object

***Score 1**
Player 1 Score

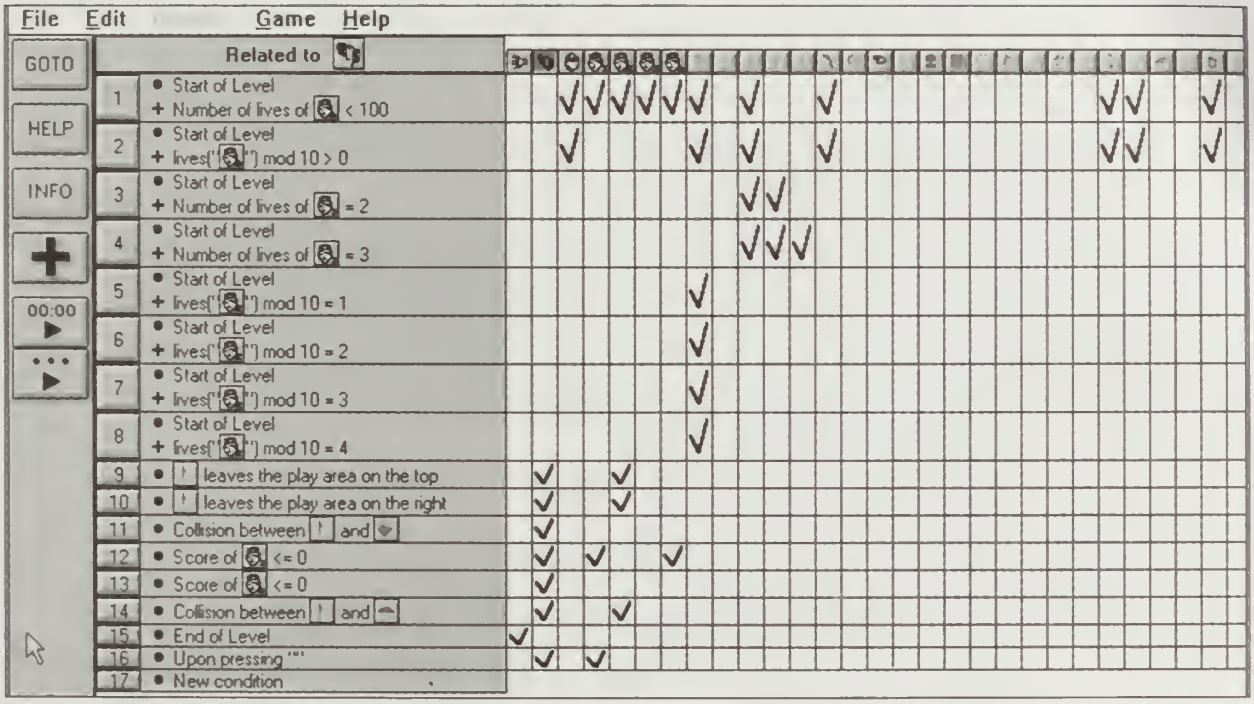
***Score 4**
Player 4 Score

***Gold**
Text object

** These objects occur in every frame. Because they are constant to every frame, they will not be listed each time.*

Event List

Events 1-38: These events will repeat in nearly all levels, with some modifications. For instance, the values set when Normal Guy leaves the play area will vary from frame to frame, and Start of Level conditions also vary. But the movement and attack options will be pretty consistent as will the shield/hit point settings. Event 39 is the start of the conditions and events specific to this frame.



A small sample of the Event List for Frame One of Normal's Quest

1. Start of Level

1. Start of Level

+ Number of Lives of Player 4 < 100

Create New Objects: Create Sword Icon at (-60, 118)
Create Laser Icon at (-26, 231)
Create Laser 4 at (-55, 282)
Create Amazon at (745, -27)
Player 1: Set Score to 100
Set Number of Lives to 1
Player 2: Set Score to 100
Set Number of Lives to 14
Player 3: Set Score to 10
Set Number of Lives to 10
Player 4: Set Score to 5000
Set Number of Lives 100
Normal Guy: Set direction to "right"
Set position to (29, 251)
Change animation sequence to Stopped
Shield: Set position at (50, 30)
Alien 18: Set position at (744, 488)
Set alterable value A to 100
Stop
Arrow: Flash during 00'30"
Gangster: Set position at (948, 371)
Lightning 2: Destroy
Fireball 2: Destroy
Pint of Suds: Set position at (948, 371)
Sword Icon: Set position at (122, 250)
Pint of Suds 2: Set position at (948, 371)

Event 1: Sets initial game states for all the global variables, player's initial position, and positions for some objects. It also places the other three player objects out of the play area.

2. Start of Level

+ Lives "Player 4" mod 10 > 0

Create New Objects: Create Sword Icon at (-60, 118)
Create Laser Icon at (-26, 231)
Create Laser 4 at (-55, 282)
Create Amazon at (745, -27)
Normal Guy: Change animation sequence to Stopped
Shield: Set position at (50, 30)
Alien 18: Set position at (744, 488)
Set alterable value A to 100
Stop
Arrow: Flash during 00'30"
Gangster: Set position at (948, 371)
Lightning 2: Destroy
Fireball 2: Destroy
Pint of Suds: Set position at (948, 371)
Pint of Suds 2: Set position at (948, 371)

Event 2: Once the player has taken the Sword, Player 4 Lives is set to 101 and Event 1 is no longer

valid. If the player gets the Sword, then gets killed or leaves the frame and returns, this event will become activated.

3. Start of Level
+ Number of Lives of Player 1 = 2
Shield: Set position at (50, 30)
Shield 2: Set position at (100, 30)

4. Start of Level
+ Number of Lives of Player 1 = 3
Shield: Set position at (50, 30)
Shield 2: Set position at (100, 30)
Shield 3: Set position at (150, 30)

Events 3 & 4: These events place the popsicle objects on the screen, depending on the value of Player 1 Lives.

5. Start of Level
+ Lives of Player 2 mod 10 = 1
Normal Guy: Set direction "down"
Set position at (270, 76)

6. Start of Level
+ Lives of Player 2 mod 10 = 2
Normal Guy: Set direction "left"
Set position at (581, 255)

7. Start of Level
+ Lives of Player 2 mod 10 = 3
Normal Guy: Set direction "up"
Set position at (329, 329)

8. Start of Level
+ Lives of Player 2 mod 10 = 4
Normal Guy: Set direction "right"
Set position at (29, 251)

Events 5-8: These events test the current value (mod 10) of Player 2 Lives and then position Normal Guy at the appropriate location on the screen. (Player 2 Lives mod 10 is set whenever the player leaves the play area.)

9. Normal Guy collides with the background
Normal Guy: Stop

10. Normal Guy leaves the play area on the top
GSC: Jump to frame number 3
Player 2: Set number of lives to lives ("Player 2") / 10 * 10 + 3

11. Normal Guy leaves the play area on the right
GSC: Jump to frame number 12
Player 2: Set number of lives to lives ("Player 2") / 10 * 10 + 5

12. Collision between Normal Guy and Arrow
GSC: Jump to Frame number 13

13. Normal Guy leaves the play area on the bottom or the left
Normal Guy: Stop

Events 9-13: These events control what happens when Normal Guy moves out of the play area. In Events 10 & 11, Player 2 Lives is set by dividing by ten, then multiplying the integer result by ten and adding a number to represent where the player came from. For instance, if the number was originally 42, dividing by ten gives 4. Multiply by ten again to get 40, then add 3 to get 43, which will be read in the next frame to determine where Normal Guy came from (the ones digit being the important one here).

14. Repeat while "Space bar" is pressed

+ Score of Player 3 mod 10 = 1

Normal Guy: Change animation sequence to Attack
Change speed of animation to 10
Sword: Set position at 0,0 from Normal Guy
Set direction to Dir "Normal Guy"

Events 14-16: These events trigger the attack animation and set the appropriate weapon in Normal Guy's hands. The current weapon is kept in the ones digit of Player 3's Score, so Player 3 Score mod 10 reads the current equipped weapon. Event 14 reads if the Sword is equipped (values 11, 21, or 31). Event 15 reads if the Flame Thrower (Laser 4) is equipped (values 22 or 32) and also shoots the Fireball 2 object if there are no more than 5 already on the screen. Event 16 reads if the Magic Sword is equipped and uses that weapon in the attack animation. As long as the Space bar is held down (and the other conditions are met), these events are true.

Note: The weapons are set to position (0, 0) from Normal Guy. In this case, the Action Point was used. To do so, press on the Options button and select Action Point). In the animation frames, the Action Point is set on Normal Guy's hand.

15. Repeat while "Space bar" is pressed

+ Score of Player 3 mod 10 = 2
+ Number of Fireball 2 in zone (0,0) to (640, 480) < 5

Create New Objects: Create Fireball 2 at (26, -5) from Normal Guy
Normal Guy: Change animation sequence to Attack
Change speed of animation to 10
Fireball 2: Start
Start animation
Set speed to 12
Set direction to Dir "Normal Guy"
Laser 4: Set position at (0,0) from Normal Guy
Set direction to Dir "Normal Guy"

16. Repeat while "Space bar" is pressed

+ Score of Player 3 = 33

Normal Guy: Change animation sequence to Attack
Change speed of animation to 10
Magic Sword: Set position at (0,0) from Normal Guy
Set direction to Dir "Normal Guy"

17. Normal Guy animation Attack is playing

+ Score "Player 3" mod 10 = 1

Sword: Set position at (0, 0) from Normal Guy
Set direction to Dir "Normal Guy"

Event 17: This event makes sure the sword stays in Normal Guy's hand as long as the animation

Attack is playing. If this condition is not included, sometimes the sword stays on the screen when the player moves Normal Guy quickly after letting go of the Space bar. For completeness, this condition should also be created for both the Flame Thrower and the Magic Sword.

18. Normal Guy animation Attack is over

Normal Guy: Change animation sequence to Walking
Sword: Set position at (-100, 200)
Laser 4: Set position at (-100, 200)
Magic Sword: Set position at (-100, 200)

Event 18: This event changes the animation when the player lets go of the Space bar and the Attack animation finishes. It also sets all three weapons out of the play area.

19. Score of Player 1 >= 100

Shield: Change animation direction to "right"

20. Score of Player 1 <= 90

Shield: Change animation direction to "up"

21. Score of Player 1 <= 50

Shield: Change animation direction to "left"

22. Score of Player 1 <= 20

Shield: Change animation direction to "down"

23. Score of Player 1 <= 200

Shield 2: Change animation direction to "right"

24. Score of Player 1 <= 175

Shield 2: Change animation direction to "up"

25. Score of Player 1 <= 150

Shield 2: Change animation direction to "left"

26. Score of Player 1 <= 110

Shield 2: Change animation direction to "down"

27. Score of Player 1 <= 300

Shield 3: Change animation direction to "right"

28. Score of Player 1 <= 275

Shield 3: Change animation direction to "up"

29. Score of Player 1 <= 250

Shield 3: Change animation direction to "left"

30. Score of Player 1 <= 210

Shield 3: Change animation direction to "down"

Events 19-30: These events read the score of Player 1 (hit points) and set the animation direction of the appropriate popsicles to show various states of being eaten.

31. Score of Player 1 <= 0

GSC: Restart Current Level
Player 1: Set Score to lives "Player 1" * 100
Player 4: Subtract 1000 from Score

Event 31: If the hit points fall to or below zero, the level restarts, the hit points are set to their current maximum (depending on how many popsicles the player has gotten), and 1000 points are subtracted from the Score.

32. Score of Player 4 <= 0

GSC: Restart the game

Event 32: If the score of Player 4 falls to or below zero, the game restarts.

33. Score of Player 1 = 100

+ Number of lives of Player 1 = 1
+ score of Player 3 mod 10 = 1
+ Upon pressing "Space bar"

Sound: Play sample arrow1
Normal Guy: Shoot Glooper at speed 72
Glooper: Change animation direction to Dir ("Normal Guy")

Events 33-35: In many games, the character has extra capabilities if all hit points are at maximum. These events read several parameters. First, does the player have the maximum number of hit points available at the time. Second, is the Sword the active weapon. Finally, is the Space bar pressed. If all these conditions are true, then a Glooper is shot from Normal Guy each time the Space bar is pressed.

34. Score of Player 1 = 200

+ Number of lives of Player 1 = 2
+ score of Player 3 mod 10 = 1
+ Upon pressing "Space bar"

Sound: Play sample arrow1
Normal Guy: Shoot Glooper at speed 72
Glooper: Change animation direction to Dir ("Normal Guy")

35. Score of Player 1 = 300

+ Number of lives of Player 1 = 3
+ score of Player 3 mod 10 = 1
+ Upon pressing "Space bar"

Sound: Play sample arrow1
Normal Guy: Shoot Glooper at speed 72
Glooper: Change animation direction to Dir ("Normal Guy")

36. Upon pressing "W"

+ score of Player 3 mod 10 <> 1

Create New Objects: Create Sword Icon at (600, 25)
Player 3: Set Score to Score ("Player 3") / 10 * 10 + 1
Laser Icon: Destroy
M. Sword Icon: Destroy

37. Upon pressing "A"

+ score of Player 3 mod 10 <> 2
+ Score of Player 3 > 20

Create New Objects: Create Laser Icon at (600, 25)
Player 3: Set Score to Score ("Player 3") / 10 * 10 + 2
Sword Icon: Destroy
M. Sword Icon: Destroy

38. Upon pressing "S"

+ score of Player 3 <> 33
+ Score of Player 3 > 30

Create New Objects: Create M. Sword Icon at (600, 30)
Player 3: Set Score to 33
Sword Icon: Destroy

Laser Icon: Destroy

Events 36-38: These events control the active weapon. If the proper key is pressed on the keyboard, the event reads the value of Player 3 Score to see if it is already set to the appropriate weapon number and if the player has gotten the appropriate weapon yet (which is read in the tens digit). If these conditions pass as true (that the current weapon is not the one being switched to and the player has gotten that weapon previously), then the appropriate icon is placed at the top of the screen and the value of Player 3 Score is changed to reflect the current weapon number.

39. Collision between Normal Guy and Sword Icon

+ Alterable value A of Sword Icon = 0
+ Pick one of Dot 6

Create New Objects: Create Gymnasia at (0, 0) from Dot 6
Player 3: Set Score to 11
Player 4: Set Number of Lives to 101
Sword Icon: Set alterable value A to 1
Set position at (600, 25)

Event 39: When Normal Guy touches the Sword Icon (and the Sword Icon's alterable value A = 0), then the program picks one of the Dot 6 objects, which are scattered invisibly around the play area. It places a Gymnasia object at one of those dots, sets the Player 3 score to 11, sets Player 4 Lives to 101 (so if the player dies and the level restarts, new start conditions will apply), and sets the Sword Icon at the top of the screen while setting its alterable value A to 1.

40. Alterable value A of Sword Icon >= 1

+ Alterable value A of Sword Icon <= 3
+ Every 1' 00"
+ Pick one of Dot 6

Create New Objects: Create Gymnasia at (0, 0) from Dot 6
Dot 6: Destroy
Sword Icon: Add 1 to alterable value A

Event 40: Once the player has obtained the Sword and alterable value A of Sword Icon is 1 or greater, then new Gymnasia objects are created at random every second at Dot 6 objects, the Sword Icon alterable value A is incremented by one, and the Dot 6 where the Gymnasia object was created is destroyed. Destroying the Dot 6 prevents more Gymnasia objects from being created at that spot again.

41. Every 1'00"

+ Gymnasia is in the play area
+ Alterable value A of Gymnasia < 3

Gymnasia: Shoot Mega Star toward Random direction (out of 32) at speed 75
Add 1 to alterable value A

Event 41: Every second, when a Gymnasia object is in the play area and its alterable value A is less than 3, it shoots a Mega Star in a random direction.

42. Collision between Sword and Gymnasia

Sound: Play sample ceramic3
Create New Objects: Create Blizzard at (0, 0) from Gymnasia
Player 4: Add 25 to Score

Glooper: Destroy
Gymnasia: Destroy

Events 42-44: If the player hits the Gymnasia object with Sword, Glooper, or Magic Sword, the Gymnasia object is destroyed, the Blizzard object is created in its place, and the player receives 25 points.

43. Collision between Glooper and Gymnasia

Sound: Play sample ceramic3
Create New Objects: Create Blizzard at (0, 0) from Gymnasia
Player 4: Add 25 to Score
Glooper: Destroy
Gymnasia: Destroy

44. Collision between Magic Sword and Gymnasia

Sound: Play sample ceramic3
Create New Objects: Create Blizzard at (0, 0) from Gymnasia
Player 4: Add 25 to Score
Gymnasia: Destroy

45. Blizzard animation Stopped is over

Blizzard: Destroy

46. Collision between Normal Guy and Mega Star

Sound: Play sample punch1
Player 1: Subtract 20 from Score
Mega Star: Destroy

47. Collision between Sword and Mega Star

Sound: Play sample ball5
Mega Star: Destroy

48. Collision between Glooper and Mega Star

Sound: Play sample ball5
Glooper: Destroy
Mega Star: Destroy

49. Collision between Normal Guy and Gymnasia

Sound: Play sample ceramic3
Player 1: Subtract 20 from Score
Gymnasia: Destroy

Events 45-49: These events are pretty self-explanatory.

50. Alterable value A of Gymnasia = 3

Gymnasia: Set alterable value A to 0

Event 50: This event resets alterable value A of the Gymnasia object, resetting the shooting cycle.

51. Alterable value A of Amazon = 0

+ Number of Normal Guy in zone (144, 349) to (197, 471) = 1

Amazon: Set alterable value A to 1
Set position at (34, 443)
Set alterable value B to 100

Event 51: This event begins a sequence that has to do with the Amazon object and getting

another shield. First, if the Amazon object's alterable value A is 0 and Normal Guy ente ic zone in the lower left corner of the play area, the Amazon is created and its alterable and B are set to 1 and 100 respectively.

52. Alterable value A of Amazon = 1
+ Every 1'00"
    Amazon: Shoot Amazon Arrow at speed 47 toward (0, 0) from Normal Guy

Event 52: When the Amazon is on the screen, its alterable value A is set to 1 and it shoots an Amazon Arrow at Normal Guy every second.

53. Collision between Normal Guy and Amazon
    Player 1: Subtract 25 from Score

54. Collision between Sword and Amazon
    Amazon: Subtract 25 to alterable value B

55. Collision between Glooper and Amazon
    Amazon: Subtract 25 to alterable value B

56. Collision between Normal Guy and Amazon Arrow
    Sound: Play sample punch2
    Player 1: Subtract 25 from Score
    Amazon Arrow: Destroy

57. Collision between Sword and Amazon Arrow
    Sound: Play sample woodpole
    Amazon Arrow: Destroy

58. Collision between Glooper and Amazon Arrow
    Sound: Play sample splat
    Amazon Arrow: Destroy

Events 53-58: These events are pretty self-explanatory.

59. Value B of Amazon <= 0
+ Alterable value A of Amazon = 1
    Sound: Play sample thunder
    Create New Objects: Create Lightning 2 at (1, -27) from Amazon
    Player 4: Add 100 to Score
    Amazon: Destroy

Event 59: If the Amazon's alterable value B falls to zero or below and its alterable value A is 1, then the Amazon is destroyed and Lightning 2 is created in its position. The player gains 100 points.

60. Lightning 2 animation Stopped is over
    Lightning 2: Destroy

61. Lightning 2 animation Stopped is over
+ Number of lives of Player 1 < 2
    Armor 2: Set position at (42, 421)

62. Lightning 2 animation Stopped is over
+ Number of lives of Player 1 < 3
+ Score of Player 3 > 20
    Armor 2: Set position at (42, 421)

Events 60-62: These events occur when the Lightning 2 animation is finished. First, Lightning 2 is

destroyed in Event 59. Event 60 looks at the the player's Shield Level. If it is less that 2, then the Armor 2 object is placed in the play area. In Event 61, if the player's Shield Level is less than 3 and the weapon setting is at the second level, then the Armor 2 is placed in the play area. This prevents the player from returning and getting a third shield before completing a specific part of the game. There is another shield that can be obtained in Frame 3, but the maximum number of shields allowed in the game is three.

63. Collision between Normal Guy and Armor 2

+ Number of lives of Player 1 < 3

Player 1: Add 1 to Number of Lives
Add 100 to Score
Armor 2: Set position at (700, 500)

Event 63: If Normal Guy collides with Armor 2, then both number of lives and score of Player 1 are incremented and Armor 2 is moved out of the play area.

64. Number of Normal Guy in zone (116, 80) to (184, 166) = 1

Alien 18: Set alterable value A to 100
Set position at (42, 61)
Start
Set speed to 20

Event 64: This event begins a sequence that involves the Alien 18 object and the Chest of Gold. First, if Normal Guy enters a particular zone (in the upper left corner of the play area), then Alien 18 is positioned in that area and its alterable value A is set to 100. It is then started in motion at speed 20.

65. Alien 18 is in the play area

+ Every 1'00"

Alien 18: Look at (0, 0) from Normal Guy
Start
Set speed at 30

Event 65: Once Alien 18 is in the play area, it looks toward Normal Guy every second and moves at speed 30 toward him.

66. Collision between Normal Guy and Alien 18

Sound: Play sample knockbig
Player 1: Subtract 7 from Score

67. Collision between Sword and Alien 18

Sound: Play sample hit1
Create New Objects: Create Wallop at (0, 0) from Alien 18
Alien 18: Subtract 25 to alterable value A
Wallop: Change animation sequence to Stopped

68. Collision between Glooper and Alien 18

Sound: Play sample hit1
Create New Objects: Create Wallop at (0, 0) from Alien 18
Alien 18: Subtract 25 to alterable value A
Wallop: Change animation sequence to Stopped
Glooper: Destroy

Events 66-68: These events have to do with collisions between Normal Guy, the Sword or

Glooper, and Alien 18. When the weapons hit, the object Wallop is placed at (0, 0) from Alien 18 and points are subtracted from Alien 18's alterable value A. Note that Wallop's animation sequence is changed to Stopped. Later, this will be significant.

69. Alterable value A of Alien 18 <= 0

Sound: Play sample crash
Create New Objects: Create Wallop at (0, 0) from Alien 18
Player 4: Add 50 to Score
Alien 18: Destroy
Wallop: Change animation sequence to Appearing

Event 69: If alterable value A of Alien 18 falls to or below zero, then Alien 18 is destroyed, the player gains some points, and Wallop is placed where Alien 18 was. Note that this time Wallop's animation sequence is set to Appearing.

70. Wallop animation Stopped is over

Wallop: Destroy

Events 70 & 71: In these events, the animation of Wallop is looked at. If Wallop was created as a result of hitting Alien 18 with a weapon, then its animation sequence was set to Stopped, and it is destroyed when that animation sequence completes. If the final blow was delivered, then Wallop's animation sequence was set to Appearing and this time when the animation is completed, not only is Wallop destroyed, but the Chest of Gold is placed in the play area where the player originally found Alien 18.

71. Wallop animation Appearing is over

Wallop: Destroy
Chest of Gold: Set position (63, 90)

72. Collision between Normal Guy and Chest of Gold
+ Number of lives of Player 4 < 300

Sound: Play sample bellhi
Create New Objects: Create Little Bubbles at (48, 77)
Player 2: Add 100 to Score
Player 4: Add 100 to Number of Lives
Chest of Gold: Set position at (-50, 500)

Event 72: The collision between Normal Guy and the Chest of Gold is an ordinary KNP event with one exception. The reason that 100 is added to Player 4 Lives is to track how many times the gold is gotten. Once this chest has been touched twice (see Event 74), then Player 4 Lives is equal to 300 or better and the Chest of Gold is destroyed (in Even Even if the player leaves the frame and returns, there won't be any more gold. Otherwise, if this global variable were not set, the player could keep getting the Chest of Gold object again and again.

Note: To be a really cruel game designer, you could allow the player to keep getting the chest, but once it was gotten twice, only give 1 gold each time instead of 100.

73. Number of lives of Player 4 >= 300

Chest of Gold: Destroy

74. Alien 18 leaves the play area

Alien 18: Bounce

75. Collision between Sword and Magic Rock

+ Number of Alien 18 = 0

Sound: Play sample number1
Create New Objects: Create Alien 18 at (708, 507)
Alien 18: Stop
Set alterable value A to 100

Event 75: If the player hits the Magic Rock in the lower right corner of this frame with the Sword, it resets the Alien 18 object by creating a new one out of the play area. Now, if the player returns to the zone in the upper left, the Alien 18 object will appear again. Note: As before, the player can reset the Alien 18 object any number of times, but will only get the Chest of Gold twice.

76. Little Bubbles animation Stopped is over

Little Bubbles: Destroy

77. Collision between Normal Guy and Magic Rock

Sound: Play sample pop2

78. Collision between A Tree1 and Fireball 2

Sound: Play sample fireball
Create New Objects: Create Explosion 10 at (408, 191)
Create Cornertwist at (426, 89)
Player 4: Add 250 to Score
A Tree1: Destroy
Fireball 2: Destroy

Event 78: This event begins yet another sequence for this frame. In this event, the player burns away the tree leading to the upper-right quadrant of the play area. This can only be accomplished if the player has gotten the Flame Thrower (Laser 4) from the Dark Room. This requires playing the game for some time and returning to this point once the Flame Thrower has been obtained. When the A Tree1 is destroyed, Explosion 10 and Cornertwist are created and the player's score is incremented by 250.

79. Explosion 10 animation Disappearing is over

Explosion 10: Destroy

80. Collision between Normal Guy and Cornertwist

Sound: Play sample beastcry
Create New Objects: Create Appear at (498, 89)
Cornertwist: Destroy

Event 80 & 81: Colliding with the Cornertwist object causes the Appear object to be created. Once the Appear object's animation is completed, it is destroyed and Wizhouse is created.

81. Appear animation Stopped is over

Create New Objects: Create Wizhouse at (497, 85)
Appear: Destroy

82. Collision between Normal Guy and Wiz house

GSC: Jump to Frame 2
Player 2: set Number of Lives to lives ("Player 2") / 10 * 10 + 4

Event 82: When Normal Guy enters the Wizhouse, the game jumps to Frame 2 and Player 2 Lives is changed to reflect that the player came from the right side of the screen (Player 2 mod 10 = 4).

83. Collision between Magic Sword and Amazon

Sound: Play sample thunder
Create New Objects: Create Lightning 2 at (1, -27) from Amazon
Player 4: Add 50 to Score
Amazon: Destroy

84. Collision between Magic Sword and Amazon Arrow

Sound: Play sample woodpole
Amazon Arrow: Destroy

85. Collision between Magic Sword and Alien 18

Sound: Play sample hit1
Create New Objects: Create Wallop at (0, 0) from Alien 18
Alien 18: Destroy

Events 83-85: These events were added to handle situations that occur if the player should return to this level with the Magic Sword.

86. Collision between Normal Guy and A Tree1

Normal Guy: Stop

87. Number of lives of Player 1 >= 2

+ No more Shield 2 in zone (4, 4) to (426, 122)
Shield 2: Set position at 100, 30

Events 87 & 88: If the player gets an extra shield by touching the Armor 2 object, these events test whether the Shield 2 and Shield 3 objects are in place. If they are not, and the player has the necessary Shield Level, then they are placed in their appropriate positions.

88. Number of lives of Player 1 = 3

+ No more Shield 3 in zone (4, 4) to (426, 122)
Shield 3: Set position at 150, 30

89. Fireball 2 leaves the play area

Fireball 2: Destroy

90. Fireball 2 collides with the background

Fireball 2: Destroy

91. Upon pressing "H"

+ Lives of Player 4 / 100 = 8
Sound: Play sample evilhaa (uninterruptible)
Player 1: Add 300 to Score

Event 91: After the player has successfully completed the game, is is possible to return and play through the game some more. The "Magic Ring" lets the player recharge hit points any time (by pressing the "H" key).

92. Repeat while "L" is pressed

+ Repeat while "I" is pressed
+ Upon pressing "V"

+ Score of Player 4 <= 2000
    Player 4: Add 10,000 to Score

Event 92: This is a cheat put in for fun. If the player holds down "L" and "I" and then presses "V" AND the player's score is at or below 2000, then 10,000 points (equivalent of ten lives) are added to the player's score.

93. End of Level

Sound: Play sample cuckclok

94. Upon pressing "F1"

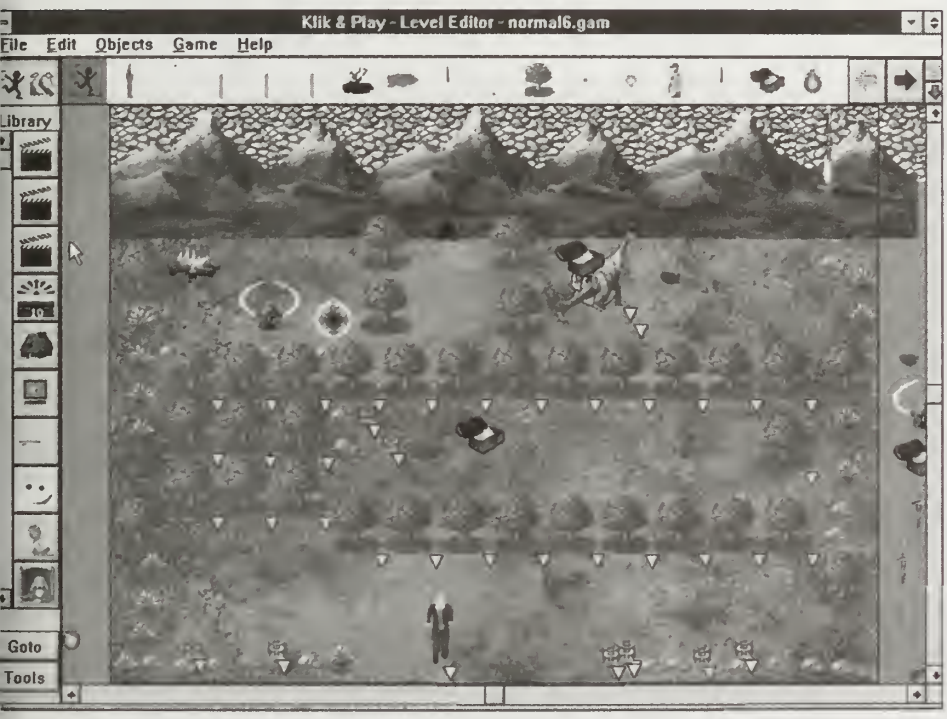
GSC: Jump to frame number 14
Player 1: Add 10 to Number of lives

Event 94: This event controls the entry into the "help" system. Frame 14 contains hints for each of the levels of the game. Adding 10 to the number of Lives of Player 1 is a way of tracking which frame the player came from. Frame 1 adds 10. Frame 2 adds 20, and so forth. Dividing the resultant number by 10 tells you what frame the player came from.

For the sake of clarity, I'm going to skip Frame 2 for the moment since it doesn't actually occur in the game until much later (after Frame 11).

Eight: Normal's Quest (Frame 3)

The North Field



Active Objects

The Standard Objects are described in Frame 1. One exception that should be noted is the Normal Guy object, which has special animations created for this frame.

Normal Guy

Description: Fully animated man
Movement: eight directions
Controlled by: Player 1
Note: In this level a special Disappearing animation was made and also one called Beamback. See the pictures on the next page.

This frame is pretty tricky. Like Frame 1, there are several "zones" of action and activity within this frame, but some of them can't be activated until later in the game. There's one new global variable that gets set — the Green Dino variable which tells the game whether the Green Dino has been hatched from the egg or not, and there are some modifications to the standard events because at one point in the game, the player may lose the Sword and not be able to attack with it again. To accomplish this, a new condition was added to some of the standard attack events. There are also a few new tricks, some new animations, and some interesting effects in this frame.

Frame Specific Objects

Burnt

Description: Burned tree

Note: This was made by modifying the Tree 1 from the Heaven, Earth, Fire and Water library. It looks like a burned tree.

Explosion 13

Description: From Explosions library

A Tree1

Description: Tree (see Frame 1)

Dot 6

Description: Brown dot

Mega Star
Description: From Heaven, Earth, Fire and Water library

Chest of Gold
Description: From Collectable Items library

Super Star
Description: From Heaven, Earth, Fire and Water library

A Tree2
Description: Tree

Note: A Tree2 has a special animation that shows it after being chopped down.

Cave Entrance
Description: Small cave entrance

Note: This was made by taking the object from the Heaven, Earth, Fire and Water library and making an active object out of it.

A Tree3
Description: Apple Tree

Note: This is an ordinary tree object that has been modified to look as if it is bearing fruit. Small red dots were added to the image in the animation editing window.

Log Fire
Description: From Heaven, Earth, Fire and Water library

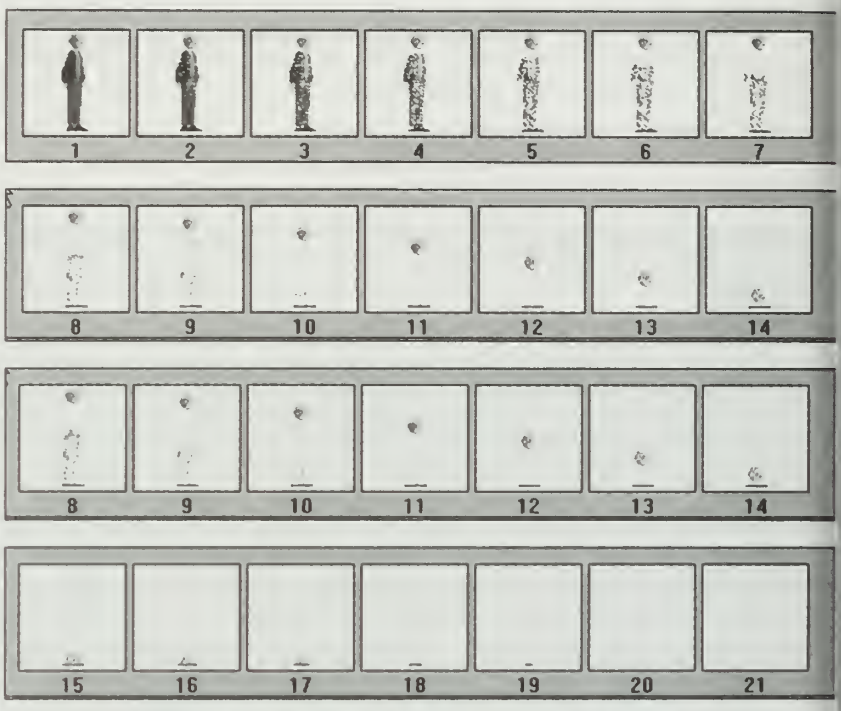
A Tree4
Description: Tree

Fire
Description: Fire

Note: This is Log Fire without the logs, made by modifying each frame of the Log Fire animation.

Helmet
Description: Helmet from Collectable Items library

Potion
Description: Beaker



Disappearing animation frames

Beamback animation frames

Hatching Green Dinosaur
Description: Hatching Green Dinosaur from Dinosaur library (with hatching animation)

Head 1 through Head 6
Description: Head 1 from People Parts 2 library
Movement: Taped

Note: Each head has a preset path.

Green Dino
Description: Green Dinosaur from Dinosaurs library (made into an Active Object)
Movement: Ball

Ball with Arrows
Description: From Pinball library

Note: Animation was modified to make the arrows blink on and off, oscillating between red and black.

Apple
Description: Apple

Note: Special animation was created to make the apple disappear.

Money
Description: From Collectable Items library

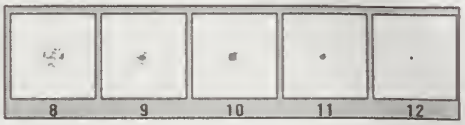
Note: Special animation was created to make the Money disappear.

Chicken Leg
Description: From Collectable Items library

Note: Special animation was created to make the Chicken Leg disappear.

Fire animation made from Log Fire

Apple Disappearing animation. Note that Appearing animation is the same sequence in reverse.



Money object animation called erode

Backdrop Objects

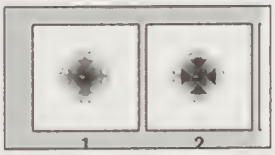
Mud & Mud 2
Description: Background of varied mud
Backdrop object, no obstacle

Plant 2
Description: Shrub
Backdrop object, obstacle

Tree 1
Description: Tree
Backdrop object, obstacle

Stones
Description: From Heaven, Earth, Fire and Water library
Backdrop object, no obstacle

Chicken Leg animation called eat.



Ball with Arrows animation

Rock
Description: From Heaven, Earth, Fire and Water library
Backdrop object, obstacle

Mountains
Description: Mountain range
Backdrop object, obstacle

A Tree 3

Green Dino crude animation

Game Objects

Same as in Frame 1 plus:

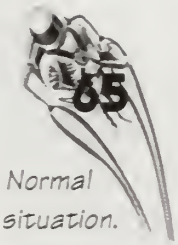
Counters 1-4
Hidden counter objects

Event List

1. Start of Level
+ Number of Lives of Player 4 < 100

Create New Objects: Create Sword Icon at (-60, 118)
Create Laser Icon at (-26, 231)
Create Laser 4 at (-55, 282)
Create Amazon at (745, -27)
Player 1: Set Score to 100
Set Number of Lives to 1
Player 2: Set Number of Lives to 14
Set Score to 100
Player 3: Set Score to 11
Set Number of Lives to 10
Player 4: Set Score to 5000
Set Number of Lives 100
Normal Guy: Set direction to "right"
Set position to (29, 251)
Change animation sequence to Stopped
Sword: Set alterable value C to 0
Shield: Set position at (50, 30)
Alien 18: Set position at (744, 488)
Set alterable value A to 100
Stop
Gangster: Set position at (948, 371)
Lightning 2: Destroy
Fireball 2: Destroy
Pint of Suds: Set position at (948, 371)
Sword Icon: Set position at (122, 250)
Pint of Suds 2: Set position at (948, 371)
Green Dino: Set position at (800, 387)
Stop
Set alterable value B to 500

Event 1: This event is only used when testing the level. Once the game has begun, Player 4 Lives will be greater than 100 and this event will no longer be valid.



Note that Sword alterable value C is set to 0. On this level, there is a chance that Normal Guy could lose his sword (see Event 94), so alterable value C is used to track this situation. For that reason, it's important to set that value to 0 at the beginning so the attack functions will operate correctly.

2. Start of Level

+ lives "Player 4" mod 10 > 0
+ lives "Player 4" mod 100 / 10 <> 1

Sword: Set alterable value C to 0
Shield: Set position at (50, 30)
Gangster: Set position at (948, 371)
Fireball 2: Destroy
Pint of Suds: Set position at (948, 371)
Pint of Suds 2: Set position at (948, 371)
Hatching Green Dinosaur: Stop animation
Green Dino: Set position at (800, 387)
Stop
Set alterable value B to 500
Counter 4: Set counter to 0

Events 2 & 3: These events are the general setup for the level. The one condition that's added is about Player 4 Lives mod 100 / 10. This condition reads whether the Green Dino has been set loose or not (which is handled in Event 105. If this condition has been set, the dinosaur will be created every time the player returns to this level. Event 3 sets up the situation if Player 4 mod 100 / 10 = 1. Notice that it's almost the same as Event 2, with the exception of the conditions dealing with the egg and the dinosaur.

3. Start of Level

+ lives "Player 4" mod 100 / 10 = 1

Create New Objects: Create Green Dino at (407, 182)
Sword: Set alterable value C to 0
Shield: Set position at (50, 30)
Gangster: Set position at (948, 371)
Fireball 2: Destroy
Pint of Suds: Set position at (948, 371)
Pint of Suds 2: Set position at (948, 371)
Hatching Green Dinosaur: Destroy
Green Dino: Set alterable value A to 1
Set alterable value B to 500
Set alterable value C to 0
Counter 4: Set counter to 0

4. Start of Level

+ Number of Lives of Player 1 = 2

Shield: Set position at (50, 30)
Shield 2: Set position at (100, 30)

5. Start of Level

+ Number of Lives of Player 1 = 3

Shield: Set position at (50, 30)
Shield 2: Set position at (100, 30)

Shield 3: Set position at (150, 30)

Events 4 &5: These events place the popsicle objects on the screen, depending on the value of Player 1 Lives.

6. Start of Level

+ Lives of Player 4 mod 10 = 1

Normal Guy: Set direction "down"
Set position at (286, 182)

7. Start of Level

+ Lives of Player 4 mod 10 = 3

Normal Guy: Set direction "up"
Set position at (297, 454)

Events 6 & 7: These events test the current value (mod 10) of Player 4 Lives and then position Normal Guy at the appropriate location on the screen. (Player 4 Lives mod 10 is set whenever the player leaves the play area.)

8. Normal Guy collides with the background

Normal Guy: Stop

9. Normal Guy leaves the play area on the top, left, or right

Normal Guy: Stop

10. Normal Guy leaves the play area on the bottom

GSC: Jump to frame number 1
Player 2: Set Lives to lives ("Player 2") / 10 * 10 + 1

11. Collision between Normal Guy and Cave Entrance

GSC: Next frame
Player 2: Set Lives to lives ("Player 2") / 10 * 10 + 3

12. Repeat while "Space bar" is pressed

+ Score of Player 3 mod 10 = 1
+ Alterable value C of Sword = 0

Normal Guy: Change animation sequence to Attack
Change speed of animation to 10
Sword: Set position at (0,0) from Normal Guy
Set direction to Dir "Normal Guy"

13. Repeat while "Space bar" is pressed

+ Score of Player 3 mod 10 = 2
+ Number of Fireball 2 in zone (0,0) to (640, 480) < 5

Create New Objects: Create Fireball 2 at 26, -5) from Normal Guy
Normal Guy: Change animation sequence to Attack
Change speed of animation to 10
Fireball 2: Start
Start animation
Set speed to 12
Set direction to Dir "Normal Guy"
Laser 4: Set position at (0,0) from Normal Guy
Set direction to Dir "Normal Guy"

14. Repeat while "Space bar" is pressed

+ Score of Player 3 = 33

Normal Guy: Change animation sequence to Attack
Change speed of animation to 10
Magic Sword: Set position at (0,0) from Normal Guy
Set direction to Dir "Normal Guy"

15. Normal Guy animation Attack is playing

+ Score "Player 3" mod 10 = 1

Sword: Set position at (0,0) from Normal Guy
Set direction to Dir "Normal Guy"

16. Normal Guy animation Attack is playing

+ Score "Player 3" mod 10 = 2

Laser 4: Set position at (0,0) from Normal Guy
Set direction to Dir "Normal Guy"

17. Normal Guy animation Attack is playing

+ Score "Player 3" = 33

Magic Sword: Set position at (0,0) from Normal Guy
Set direction to Dir "Normal Guy"

18. Normal Guy animation Attack is over

+ Score "Player 3" mod 10 <> 1

Normal Guy: Change animation sequence to Walking
Laser 4: Set position at (-100, 200)
Magic Sword: Set position at (-100, 200)

19. Normal Guy animation Attack is over

+ Score "Player 3" mod 10 = 1

Normal Guy: Change animation sequence to Walking
Sword: Set position at (-100, 200)

20. Score of Player 1 >= 300

+ Score of Player 3 = 33
+ Repeat while "Space bar" is pressed
+ Every 00'10"

Magic Sword: Shoot Super Start toward random direction (out of 32) at speed 58

The next section of events is standard and is left out of this listing. Look at Events 19-32 in the listing for Frame 1. These correspond with Events 21-34 in this frame.

35. Score of Player 1 = 100

+ Number of lives of Player 1 = 1
+ score of Player 3 mod 10 = 1
+ Upon pressing "Space bar"
+ Alterable value C of Sword = 0

Sound: Play sample arrow1
Normal Guy: Shoot Glooper at speed 72
Glooper: Change animation direction to Dir ("Normal Guy")

36. Score of Player 1 = 200

+ Number of lives of Player 1 = 2
+ score of Player 3 mod 10 = 1
+ Upon pressing "Space bar"

+ Alterable value C of Sword = 0
    Sound: Play sample arrow1
    Normal Guy: Shoot Glooper at speed 72
    Glooper: Change animation direction to Dir ("Normal Guy")

37. Score of Player 1 = 300

+ Number of lives of Player 1 = 3
+ score of Player 3 mod 10 = 1
+ Upon pressing "Space bar"
+ Alterable value C of Sword = 0
    Sound: Play sample arrow1
    Normal Guy: Shoot Glooper at speed 72
    Glooper: Change animation direction to Dir ("Normal Guy")

Events 38-40 correspond with Events 36-38 of Frame 1.

41. Collision between Normal Guy and Head 1

Sound: Play sample whoops
Player 1: Subtract 10 from Score

Events 41-46: Event 40 deals with the collision between Normal Guy and Head 1. Events 42-46 have the same conditions for Heads 2-6.

47. Collision between Sword and Head 1

Sound: Play sample quack1
Create New Objects: Create Head 4 at (138, 453)
Player 4: Add 10 to Score
Head 1: Destroy
Counter 4: Add 1 to counter

48. Collision between Sword and Head 2

Sound: Play sample quack1
Create New Objects: Create Head 3 at (68, 453)
    Create Head 6 at (528, 453)
Player 4: Add 10 to Score
Head 2: Destroy
Counter 4: Add 1 to counter

49. Collision between Sword and Head 3

Sound: Play sample quack1
Player 4: Add 10 to Score
Head 3: Destroy
Counter 4: Add 1 to counter

50. Collision between Sword and Head 4

Sound: Play sample quack1
Create New Objects: Create Head 2 at (234, 281)
Player 4: Add 10 to Score
Head 4: Destroy
Counter 4: Add 1 to counter

51. Collision between Sword and Head 5

Sound: Play sample quack1
Player 4: Add 10 to Score
Head 5: Destroy
Counter 4: Add 1 to counter

52. Collision between Sword and Head 6

Sound: Play sample quack1
Create New Objects: Create Head 1 at (214, 257)
Create Head 5 at (430, 453)
Player 4: Add 10 to Score
Head 6: Destroy
Counter 4: Add 1 to counter

Events 47-58: Events 47 through 52 occur when the player hits one of the Head objects with the sword. In some cases, new Head objects are created in other positions when this happens, creating a sort of random effect. Counter 4 is incremented by 1. Later (in Event 61), if Counter 4 reaches 50, all the Heads are destroyed, leaving some money behind.

Events 53-58 are exactly the same as 47-52 except that they occur when the Head is hit by a Glooper and the Glooper is destroyed in each event.

59. Head 1 is stopped

Head 1: Shoot Super Star toward random direction (out of 32) at speed 34

60. Head 2 is stopped

Head 2: Shoot Super Star toward random direction (out of 32) at speed 34

Events 59 & 60: There are pauses built into the paths of Head 1 and Head 2. When they reach these pauses, they stop for a moment and shoot Super Stars out in random directions.

61. Counter 4 >= 50

Sound: Play sample fluxwarn
Create New Objects: Create Chest of Gold at (310, 277)
Create Money at (0, 0) from Head 1
Create Money at (0, 0) from Head 2
Create Money at (0, 0) from Head 3
Create Money at (0, 0) from Head 4
Create Money at (0, 0) from Head 5
Create Money at (0, 0) from Head 6
Heads 1-6: Destroy
Counter 4: Set counter to 0

Event 61: If the player destroys 50 Head objects, all the Head objects are destroyed and lots of money is created where the Heads were, plus a Chest of Gold appears.

62. Collision between Super Star and Normal Guy

Sound: Play sample impact2
Player 1: Subtract 10 from Score
Super Star: Destroy

63. Collision between Sword and Super Star

Sound: Play sample clang3
Super Star: Destroy

64. Every 04'00'
+ 1 = random(4)
+ No more Money in zone (1, 210) to (642, 480)
    Create New Objects: Create Money at (0, 0) from Head 1
    Money: Set alterable value A to 1

Events 64-68: These events handle the random appearance of Money objects at Head 1. When Head 1 is in the play area, there is a random chance that some Money will appear. Once the Money object has been created, its alterable value A is set to 1. Every second, Counter 2 is incremented, and when the counter reaches 5, the money goes into its disappearing animation (called erode) and is destroyed. Only one Money object is created at a time (unless it is as a result of Event 61, which replaces all the Head objects with Money objects.

65. Alterable value A of Money = 1
+ Every 01'00"
    Counter 2: Add 1 to counter

66. Counter 2 = 5
    Money: Change animation sequence to erode

67. Money animation erode is over
    Money: Destroy
    Counter 2: Set counter to 0

68. Collision between Normal Guy and Money
    Player 2: Add 100 to Score
    Money: Destroy
    Counter 2: Set counter to 0

69. Collision between Normal Guy and Chest of Gold
    Sound: Play sample bellhi
    Player 2: Add 1000 to Score
    Chest of Gold: Destroy

70. Every 05'00
+ 2 = random(5)
+ Number of Chicken Leg <= 3
    Create New Objects: Create Chicken Leg at (0, 0) from Head 1
    Chicken Leg: Set alterable value A to 1

Events 70- 79: Like the Money object, the Chicken Leg object is created randomly from Head 1. Up to 3 Chicken Legs can be created at once. Chicken Legs also only stay on the screen for a while, and Counter 3 is used to determine how long. If Normal Guy collides with a Chicken Leg, Player 1 score is incremented by 50, or to its current maximum value. Events 74-79 handle the different possibilities.

71. Every 01'00"
+ Alterable value A of Chicken Leg = 1
    Counter 3: Add 1 to counter

72. Counter 3 = 6
    Chicken Leg: Change animation sequence to eat

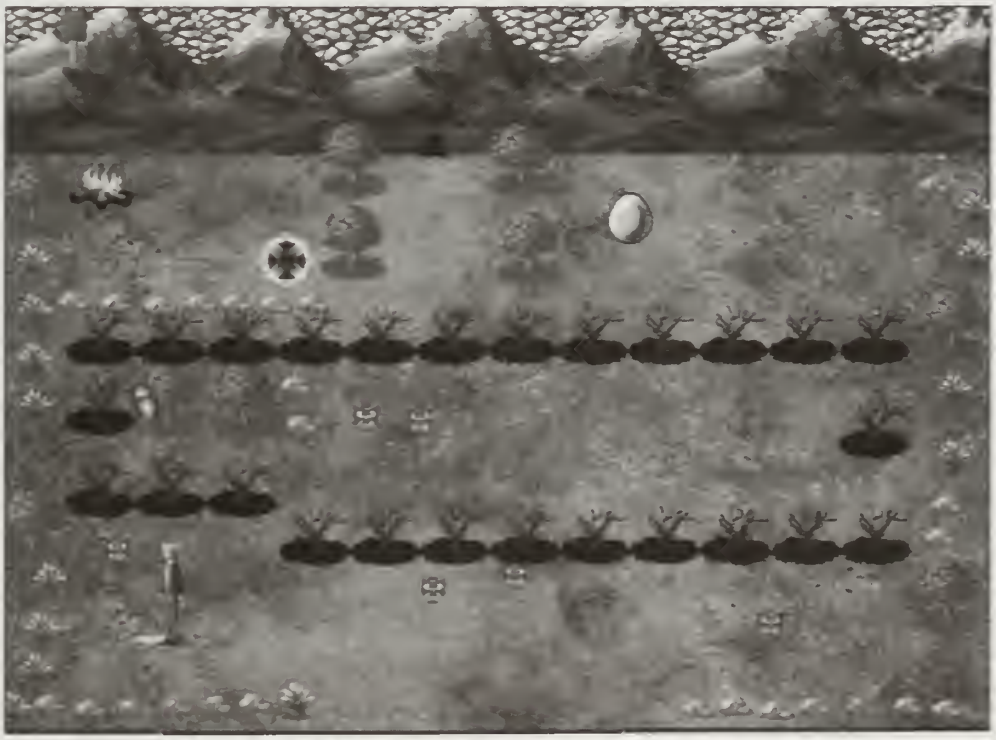
73. Chicken Leg animation eat is over
    Chicken Leg: Destroy
    Counter 3: Set counter to 0

74. Collision between Normal Guy and Chicken Leg
+ Number of Lives of Player 1 = 1
+ score ("Player 1") + 50 < 100
    Player 1: Add 50 to Score
    Chicken Leg: Destroy

75. Collision between Normal Guy and Chicken Leg
+ Number of Lives of Player 1 = 1
+ score ("Player 1") + 50 < 100
    Player 1: Set Score to 100
    Chicken Leg: Destroy

76. Collision between Normal Guy and Chicken Leg
+ Number of Lives of Player 1 = 2
+ score ("Player 1") + 50 < 200
    Player 1: Add 50 to Score
    Chicken Leg: Destroy

77. Collision between Normal Guy and Chicken Leg
+ Number of Lives of Player 1 = 2
+ score ("Player 1") + 50 = 200
    Player 1: Set score to 200
    Chicken Leg: Destroy



Event 88: Once the player has made it through the cave and gotten the Flame Thrower, it's possible to shoot a Fireball 2 at A Tree4 (which stands in front of A Tree3 (the apple tree). When this happens, all the trees are destroyed and replaced by the Burnt object, and the Fire object is also placed over the Burnt object. Alterable value A of A Tree3 is set to 10 and Counter 1 is set to 0. Also, Cave Entrance alterable value A is

78. Collision between Normal Guy and Chicken Leg
+ Number of Lives of Player 1 = 3
+ score ("Player 1") + 50 < 300
Player 1: Add 50 to Score
Chicken Leg: Destroy

79. Collision between Normal Guy and Chicken Leg
+ Number of Lives of Player 1 = 3
+ score ("Player 1") + 50 = 300
Player 1: Set score to 300
Chicken Leg: Destroy

80. Collision between Normal Guy and A Tree1
Sound: Play sample ball8
Normal Guy: Bounce

81. Collision between Normal Guy and A Tree2
+ A Tree2 animation Stopped is playing
Sound: Play sample pop1
Normal Guy: Bounce

82. Collision between Normal Guy and A Tree3
Create New Objects: Create Apple at (-2, 5) from A Tree3
A Tree3: Destroy

Event 82: When Normal Guy collides with A Tree3, the tree is destroyed and an Apple appears.

83. Collision between Normal Guy and A Tree4
Sound: Play sample ball8
Normal Guy: Bounce

84. Collision between Sword and A Tree1
Sound: Play sample twanghi

85. Collision between Sword and A Tree2
+ A Tree2 animation Stopped is playing
Sound: Play sample chainsaw (uninterruptable)
A Tree 2: Change animation sequence to Disappearing

Event 85: When the player uses the Sword on A Tree2, the chainsaw sound plays and the animation is changed to show a tree stump.

86. Collision between Sword and A Tree3
Sound: Play sample pop1

87. Collision between Sword and A Tree4
Sound: Play sample pop1

88. Collision between Fireball 2 and A Tree4
Sound: Play sample fireball
Create New Objects: Create Burnt at (0, 0) from A Tree4
Create Burnt at (0, 0) from A Tree2
Create Burnt at (0, 0) from A Tree1

Create Fire at (-2, 11) from A Tree2
Create Fire at (-2, 11) from A Tree1
A Tree1: Destroy
Fireball 2: Destroy
A Tree2: Destroy
Cave Entrance: Set alterable value A to 0
A Tree 3: Set alterable value A to 10
A Tree4: Destroy
Counter 1: Set counter to 0

89. Alterable value A of A Tree3 = 10
+ Every 01'00"
Counter 1: Add 1 to counter

90. Collision between Normal Guy and Fire
Sound: Baby
Player 1: Subtract 20 from Score

91. Counter 1 = 3
A Tree3: Set alterable value A to 1
Fire: Destroy
Counter 1: Set counter to 0

Events 89 & 91: When A Tree3 alterable value A = 10, then Counter 1 is incremented every second. When the counter reaches 3, all the Fire objects are destroyed and A Tree3 alterable value A is set to 1. Therefore, the forest fire lasts three seconds.

92. Collision between Normal Guy and Apple
Apple: Change animation sequence to Disappearing
Set alterable value A to 1

Events 92-96: If Normal Guy touches the Apple with his body, the Apple disappears, then reappears at another place. However, if the Sword touches the Apple, the Apple disappears and is destroyed. Simultaneously (in Event 95), Normal Guy's animation sequence is set to Disappearing, the Sword's alterable value A is set to 1 and its position is set to Normal Guy's position, and the player loses temporary control of Normal Guy. Alterable value A of Cave Entrance is set to 1. This is used to track the disappearance and reappearance of Normal Guy in later events. Also, the player gains 500 points for figuring out this puzzle.

Note that with alterable value C of the Sword set to 1, none of the sword attacks will work any more, and the Sword remains where it drops until Normal Guy can get back to it.

93. Apple animation Disappearing is over
+ Alterable value A of Apple = 1
+ Pick one of Dot 6
Apple: Set position at (0, 0) from Dot 6
Change animation sequence to Appearing

94. Apple animation Appearing is over
Apple: Change animation sequence to Stopped

95. Collision between Sword and Apple
Player 1: Ignore control
Player 4: Add 500 to Score

Normal Guy: Change animation sequence to Disappearing
Sword: Set alterable value C to 1
Set position at (0, 0) from Normal Guy
Cave Entrance: Set alterable value A to 1
Apple: Change animation sequence to Disappearing
Set alterable value A to 2

96. Apple animation Disappearing is over
+ Alterable value A of Apple = 2
Apple: Destroy

97. Normal Guy animation Disappearing is over
+ Alterable value A of Cave Entrance = 1
Normal Guy: Set position at (125, 172)
Change animation sequence to Beamback
Start animation

Events 97 & 98: When the Apple is struck with the Sword, Normal Guy disappears, then reappears in a new location. Alterable Value A of Cave Entrance is used to determine which occurrence of the Normal Guy animations is happening, because later, this sequence will be repeated, and Normal Guy will reappear at a different location.

98. Normal Guy animation Beamback is over
Normal Guy: Restore control

99. Collision between Normal Guy and Ball with Arrows
+ Alterable value A of Cave Entrance = 1
Normal Guy: Set position at (0, 0) from Ball with Arrows
Change animation sequence to Disappearing
Start animation
Cave Entrance: Set alterable value A to 2

Events 99-100: If Normal Guy comes in contact with Ball with Arrows, he's teleported again. This time, alterable value A of Cave Entrance is set to 2 and this variable is read in Event 100 to place Normal Guy in the appropriate position before activating the Beamback animation.

100. Normal Guy animation Disappearing is over
+ Alterable value A of Cave Entrance = 2
Normal Guy: Set position at (285, 179)
Change animation sequence to Beamback

101. Collision between Normal Guy and Log Fire
Create New Objects: Create Helmet at (132, 176)
Log Fire: Destroy

Events 101 & 102: If Normal Guy can reach the Log Fire, the Helmet will appear. If Player 1 has fewer than 3 lives, then 1 is added to Player 1 Lives and 100 is added to Player 1 Score. The Helmet is destroyed.

102. Collision between Normal Guy and Helmet
+ Number of Lives of Player 1 < 3
Player 1: Add 1 to Number of Lives

Add 100 to Score
Helmet: Destroy

103. Collision between Normal Guy and Sword

+ Alterable value C of Sword = 1
Sword: Set position at (-43, 200)
Set alterable value C to 0

Event 103: If Normal Guy was teleported by the Apple, then he loses his sword in the meantime. He has to get back to the Sword to regain it and be able to attack again. (If the player leaves the frame without regaining the Sword, the attack functions will be restored since this condition is not read in a global variable. It would be possible to use Player 3 Score to set a number that would disable the sword until the player regained it, however, this was not done in the current game.)

104. Collision between Normal Guy and Hatching Green Dinosaur

Sound: Play sample blahst
Normal Guy: Bounce

Events 104-106: If the player goes up to the egg (the Hatching Green Dinosaur) and hits it with the Sword, the animation sequence begins. When the dinosaur has hatched, the Hatching Green Dinosaur object is destroyed and Green Dino is created in its place. The Green Dino is a tough creature, and can't be killed reasonably with the Sword or Flame Thrower. However, the Magic Sword does work pretty well. In Event 106, when the Green Dino is created, Player 4 Lives is incremented by 10. This value is read at the start of the level to determine if the Green Dino has been hatched. If so, it will always be in the level until it is destroyed.

105. Collision between Sword and Hatching Green Dinosaur

Sound: Play sample ceramic3
Hatching Green Dinosaur: Start animation

106. Hatching Green Dinosaur animation Stopped is over

Create New Objects: Create Green Dino at (-4, 25) from Hatching Green Dinosaur
Player 4: Add 10 to Number of Lives
Hatching Green Dinosaur: Destroy
Green Dino: Set alterable value A to 1
Set alterable value B to 500
Look at (0,0) from Normal Guy
Start

107. Alterable value of A Green Dino = 1

+ Green Dino is in the play area
+ Every 05'00"
+ Number of Explosion 13 = 0
Green Dino: Stop
Change animation sequence to Stopped
Shoot Explosion 13 at speed 48 toward (0, 0) from Normal Guy
Set alterable value C to 1

Events 107 & 109: These events control the movements of the Green Dino when it is in the play area (and alterable value A = 1). Basically, the Green Dino follows Normal Guy around and breathes fire (Explosion 13) at him from time to time. Notice how alterable value C of the

Green Dino is used to determine when it breathes fire. In Event 109, if Normal Guy is hit by Explosion 13, alterable value C of Green Dino is set to 0. There's a chance that the Explosion 13 won't hurt Normal Guy, depending on the state of alterable value C of Green Dino.

108. Alterable value A of Green Dino = 1
+ Green Dino is in the play area
+ Every 07'00"

Green Dino: Change animation sequence to Walking
Look at (0, 0) from Normal Guy
Start
Set alterable value C to 0

109. Collision between Normal Guy and Explosion 13
+ Alterable value C of Green Dino = 1

Sound: Play sample arcweld (uninterruptable)
Player 1: Subtract 50 from Score
Green Dino: Set alterable value C to 0

110. Collision between Normal Guy and Green Dino
Sound: Play sample pop3
Normal Guy: Bounce
Green Dino: Bounce
Look at (115, 123)

111. Collision between Sword and Green Dino
Sound: Play sample clang2
Green Dino: Sub 15 to alterable value B

Cutting down A Tree 2 with the Sword

Tree positions. B = Background object. Also, note the position of Normal Guy. This is a good place to destroy the Heads from...

112. Collision between Fireball 2 and Green Dino

Sound: Play sample clang2
Green Dino: Sub 25 to alterable value B

113. Collision between Magic Sword and Green Dino

Sound: Play sample punch1
Create New Objects: Create Mega Star at (0, 0) from Normal Guy
Green Dino: Sub 250 to alterable value B

Event 113: If the player is clever enough to get the Magic Sword, the chances of destroying the Green Dino are dramatically increased.

114. Collision between Glooper and Green Dino

Sound: Play sample splat
Glooper: Destroy
Green Dino: Sub 15 to alterable value B

115. Alterable value B of Green Dino <= 0

+ No more Hatching Green Dinosaur in zone (240, 12) to (640, 270)
Sound: Play sample vacuum (uninterruptable)
Create New Objects: Create Chest of Gold at (393, 130)
Create Potion at (466, 139)
Player 4: Add 5000 to Score
Subtract 10 from Number of Lives
Green Dino: Destroy

Event 115: If the Green Dino is destroyed (alterable value B <= 0), then a Chest of Gold and a Potion are created, the player's score is increased by 4000 points, and 10 is subtracted from Player 4 Lives (so the Green Dino won't appear again when the player leaves the frame and returns).

116. Collision between Normal Guy and Potion

+ Number of Lives of Player 1 = 1
Player 1: Set Score to 100

Events 116-118: When Normal Guy gets the Potion, the amount of hit points added to Player 1 Score depends on the current Shield Level (Player 1 Lives).

117. Collision between Normal Guy and Potion

+ Number of Lives of Player 1 = 2
Player 1: Set Score to 200

118. Collision between Normal Guy and Potion

+ Number of Lives of Player 1 = 3
Player 1: Set Score to 300

119. Green Dino leaves the play area

Green Dino: Look at (0, 0) from Normal Guy
Bounce

120. Score of Player 3 = 33

+ Alterable value A of Green Dino = 1
+ Upon pressing "Space bar"
Magic Sword: Shoot Mega Star at speed 85 toward (0, 0) from Green Dino

Events 120 & 121: With the Magic Sword armed and the Green Dino on the screen, the Magic Sword shoots Mega Stars at the Green Dino, which should make short work of the beast.

121. Collision between Green Dino and Mega Star
    Sound: Play sample drillele (uninterruptable)
    Green Dino: Sub 50 to alterable value B

122. Green Dino is out of the play area
    Green Dino: Stop

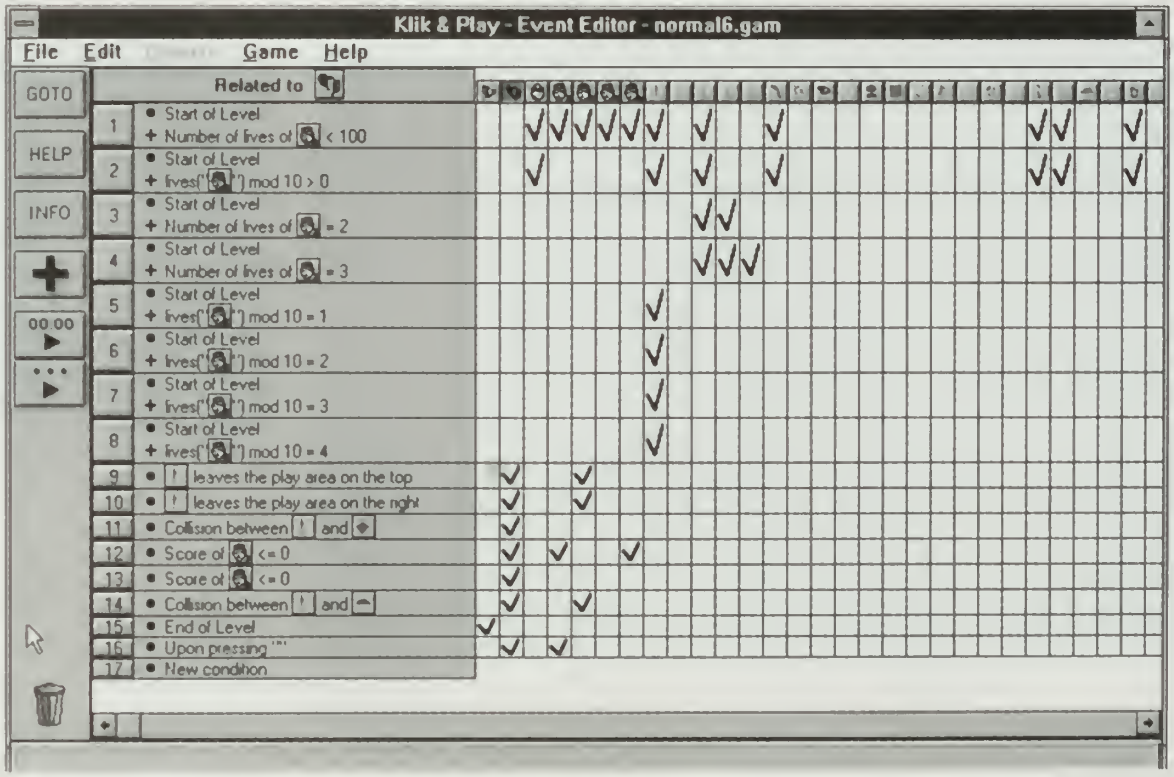
123. Upon pressing "H"
+ Lives of Player 4 / 100 = 8
    Sound: Play sample evilhaa (uninterruptible)
    Player 1: Add 300 to Score

124. Repeat while "L" is pressed
+ Repeat while "I" is pressed
+ Upon pressing "V"
+ Score of Player 4 <= 2000
    Player 4: Add 10,000 to Score

125. End of Level
    Sound: Play sample cuckclok

126. Every 00'01"
+Number of lives of Player 1 >= 2
+ No more Shield 2 in zone (4, 4) to (426, 122)
    Shield 2: Set position at (100, 30)
        Change animation direction to "right"

127. Every 00'01"
+Number of lives of Player 1 >= 3



+ No more Shield 2 in zone (4, 4) to (426, 122)
    Shield 3: Set position at (150, 30)
        Change animation direction to "right"

128. Upon pressing "B"

Player 1: Restore control
Normal Guy: Set position at (286, 182)
    Set direction to "down"

Event 128: This is a special keystroke that was added just in case the teleportation routine gets buggy. It was used during testing of the game and left in "just in case."

129. Fireball 2 leaves the play area

Fireball 2: Destroy

130. Upon pressing "F1"

GSC: Jump to frame number 14
Player 1: Add 30 to Number of Lives

Nine: Normal's Quest (Frame 4)

The Cave Entrance

This frame contains some variations on the themes already established, with a puzzle at the center of the activity.

Active Objects

In addition to the Standard Objects (as described in Frame 1) the following Frame Specific Objects were used:

Frame Specific Objects

Roundhead
Description: Pike bearer (from Warriors library)

Space Vixen
Description: Alien girl (from Space Opera library)

Falling Rock
Description: Large rock (Mars object from Space Opera library)
Movement: Path

Power Up 4
Description: Mechanical doodad (from Pinball library)

Alien 7
Description: Floating eyeball (from Aliens library)
Movement: Ball

Dot 5
Description: Dot

A Plate
Description: Metal plate (from Textures library)

Door 1
Description: Metal plate with door (from Textures library)

Bomb
Description: Explosion (renamed Explosion 12 from Explosions library)

Magic Rock
Description: Rock
Movement: Ball

Super Star
Description: From Heaven, Earth, Fire and Water library

Cave Exit
Description: Cave Entrance object turned upside down (see Frame 3)

Potion
Description: From Collectable Items library

Backdrop Objects

Quick Backdrop 1
Description: Gradiated quick backdrop ranging from dark brown to light brown
Quick backdrop object

Mountains
Description: Mountains
Backdrop object, obstacle

Mountains 1
Description: Mountains upside down
Backdrop object, obstacle

Metal Plate 1
Description: Metal Plate
Backdrop object, obstacle

Rock
Description: Rock
Backdrop object, obstacle

Game Objects

Counter 1
Display as: Hidden
Initial value: 0
Minimum value: 0
Maximum value: 999999999

Counter 2
Display as: Hidden
Initial value: 0
Minimum value: 0
Maximum value: 999999999

Counter 3
Display as: Hidden
Initial value: 0
Minimum value: 0
Maximum value: 999999999

Text 3
Text: "Thanks. Now you can enter..."

Event List

1. Start of Level
+ Number of Lives of Player 4 < 100
Create New Objects: Create Sword Icon at (-60, 118)
Create Laser Icon at (-26, 231)
Create Laser 4 at (-55, 282)
Player 1: Set Score to 200
Set Number of Lives to 2

Player 2: Set Number of Lives to 14
Set Score to 100
Player 3: Set Score to 11
Set Number of Lives to 10
Player 4: Set Score to 5000
Normal Guy: Set direction to "up"
Set position to (322, 380)
Change animation sequence to Stopped
Shield: Set position at (50, 30)
Shield 2: Set position at (100, 30)
Roundhead: Set alterable value A to 100
Space Vixen: Set alterable value A to 100
Falling Rock: Stop
Set speed to 0
Alien 7: Set alterable value B to 100
Magic Rock: Stop
Fireball 2: Destroy
Gangster: Set position at (948, 371)
Pint of Suds: Set position at (948, 371)
Pint of Suds 2: Set position at (948, 371)
Counters 1-3: Set counter to 0

Events 1-5: As usual, Event 1 is used for setting up the frame when testing, and won't be implemented during the normal game. Events 2-5 are standard Start of Level events used to set positions of the shield objects and Normal Guy based on specific conditions.

2. Start of Level

+ Number of Lives of Player 1 = 2

Shield: Set position at (50, 30)
Shield 2: Set position at (100, 30)

3. Start of Level

+ Number of Lives of Player 1 = 3

Shield: Set position at (50, 30)
Shield 2: Set position at (100, 30)
Shield 3: Set position at (150, 30)

4. Start of Level

+ Number of Lives of Player 2 = 3

Normal Guy: Set position at (322, 380)
Set direction to "up"
Set animation sequence to Walking

5. Start of Level

+ Number of Lives of Player 2 = 4

Normal Guy: Set position at (61, 262)
Set direction to "right"
Set animation sequence to Walking

6. Start of Level

+ Lives of Player 3 mod 10 < 3

Roundhead: Set alterable value A to 100
Shield: Set position at (50, 30)

Space Vixen: Set alterable value A to 100
Falling Rock: Stop
Set speed to 0
Alien 7: Set alterable value B to 100
Magic Rock: Stop
Fireball 2: Destroy
Gangster: Set position at (948, 371)
Pint of Suds: Set position at (948, 371)
Pint of Suds 2: Set position at (948, 371)
Counters 1-3: Set counter to 0

Events 6 & 7: Event 6 is true the first time the player enters this area, and stays true until the player has completed the next few frames and returns here. Everything is set up normally for this level. Event 7 becomes true after the player has completed Frame 10 and obtained the Bomb from the Space Vixen. Then the level is set up quite differently, with many of the objects originally present now destroyed.

7. Start of Level

+ Lives of Player 3 mod 10 = 4

Space Vixen: Destroy
Falling Rock: Destroy
Magic Rock: Destroy
Gangster: Set position at (948, 371)
Pint of Suds: Set position at (948, 371)
Pint of Suds 2: Set position at (948, 371)

8. Normal Guy collides with the background

Normal Guy: Stop

9. Normal Guy leaves the play area on the bottom, top, or right

Normal Guy: Stop

Events 9-11: These events determine what happens when Normal Guy leaves the play area. Note that Normal Guy cannot leave to the left until completing other tasks in the game.

10. Normal Guy leaves the play area on the left

+ Lives of Player 3 mod 10 = 4

GSC: Jump to frame number 11

11. Collision between Normal Guy and Cave Exit

GSC: Jump to frame number 3
Player 2: Set Number of Lives to lives ("Player 2") / 10 * 10 + 1

Events 12-36 correspond with Events 14-38 in Frame 1 and are not reprinted here.

37. Collision between Normal Guy and Potion

Player 1: Set score to lives ("Player 1") * 100

Event: If Normal Guy collides with the Potion, his hit points are set to the maximum available (Player 1 Lives times 100).

38. Collision between Normal Guy and Alien 7

Sound: Play sample boinghi
Player 1: Subtract 15 from Score

Alien 7: Bounce

39. Collision between Normal Guy and Space Vixen

Player 1: Ignore control
Normal Guy: Change animation sequence to Stopped
Set position at (-67, 11) from Space Vixen
Space Vixen: Set alterable value C to 1
Magic Rock: Destroy
Counter 2: Set counter to 0
Text 3: Display paragraph 1 at (367, 144)

Events 38-43: These events simply determine what happens when Normal Guy collides with different objects in this frame. The one exceptional event is Event 39, which happens when Normal Guy collides with the Space Vixen. Then the player's control is removed and a paragraph is displayed. Space Vixen's alterable value C is set to 1 (which triggers Event 73). In Event 43, if Normal Guy stumbles into Power Up 4, three additional Alien 7s are created.

40. Collision between Normal Guy and Falling Rock

Normal Guy: Bounce

41. Collision between Normal Guy and Roundhead

Sound: Play sample ngh
Player 1: Subtract 25 from Score

42. Collision between Normal Guy and Magic Rock

Sound: Play sample ball6
Normal Guy: Bounce

43. Collision between Normal Guy and Power Up 4

Sound: Play sample siren (uninterruptible)
Create New Objects: Create Alien 7 at (69, 335)
Create Alien 7 at (419, 177)
Create Alien 7 at (429, 267)

44. Collision between Sword and Power Up 4

Sound: Play sample sword 1

Events 44-49: What happens when the Sword is used on various objects. The one important detail is what happens in Event 49, which sets the Magic Rock in motion. This is necessary to solve the puzzle in this frame, i.e. to direct a Magic Rock into Power Up 4. Note that hitting Roundhead with the Sword only does 1 point of damage to Roundhead, whereas Roundhead can do 25 points damage to Normal Guy. So it's not impossible to kill Roundhead with the Sword, but there's a much easier way...

45. Collision between Sword and Roundhead

Sound: Play sample clang3
Roundhead: Sub 1 to alterable value A

46. Collision between Sword and Space Vixen

Sound: Play sample femlaugh
Space Vixen: Sub 5 to alterable value A

47. Collision between Sword and Falling Rock

Sound: Play sample clang2

48. Collision between Sword and Alien 7

Sound: Play sample stab1
Alien 7: Sub 20 to alterable value B
Bounce

49. Collision between Sword and Magic Rock

Sound: Play sample sword2
Magic Rock: Start
Set direction to Dir ("Normal Guy")
Set speed to 50

50. Collision between Glooper and Roundhead

Sound: Play sample splat
Glooper: Destroy

Events 50-52: What happens with Glooper hits some of the objects in the frame.

51. Collision between Glooper and Falling Rock

Sound: Play sample splat
Glooper: Destroy

52. Collision between Glooper and Alien 7

Sound: Play sample whizz1
Glooper: Destroy
Alien 7: Sub 10 to alterable value B

53. Collision between Magic Rock and Falling Rock

Magic Rock: Bounce

Events 53-58: Collisions between Magic Rock and other objects. Note that two conditions had to be created for collisions between Magic Rock and Alien 7. If the Magic Rock is stationary, then Alien 7 simply bounces off. If the Magic Rock is moving, however, it damages Alien 7 and is destroyed. This figures into how the game is played, since you want the Magic Rocks to hit Power Up 4 and not be destroyed by Alien 7.

54. Collision between Magic Rock and Roundhead

Roundhead: Sub 1 to alterable value A
Magic Rock: Bounce

55. Collision between Magic Rock and Space Vixen

Sound: Play sample eek
Magic Rock: Bounce

56. Collision between Magic Rock and background

Magic Rock: Bounce

57. Collision between Magic Rock and Alien 7

+ Speed of Magic Rock > 0
Alien 7: Sub 10 to alterable value B
Magic Rock: Destroy

58. Collision between Magic Rock and Alien 7

+ Speed of Magic Rock = 0
Alien 7: Bounce

59. Alterable value A of Roundhead <= 0

Player 4: Add 100 to Score
Roundhead: Destroy

Events 59 & 60: What happens if Roundhead and Space Vixen lose all their "hit points" as measured in alterable value A. Roundhead is destroyed. On the other hand, you want Space Vixen to survive, so if her hit points fall to or below zero, the level is restarted and the player loses a "life" (1000 points off the score).

60. Alterable value A of Space Vixen <= 0
+ Lives of Player 3 mod 10 < 4
GSC: Restart current level
Player 4: Subtract 1000 from Score
Space Vixen: Destroy

61. Alien 7 collides with the background
Alien 7: Bounce

62. Alien 7 leaves the play area
Alien 7: Bounce

63. Alterable value B of Alien 7 <= 0
Player 4: Add 50 to Score
Alien 7: Destroy

64. Collision between Alien 7 and Falling Rock
Alien 7: Bounce

65. Collision between Alien 7 and Roundhead
Alien 7: Bounce

66. Magic Rock leaves the play area
Magic Rock: Stop

67. No more Magic Rock in zone (0, 54) to (648, 432)
+ Pick one of Dot 5
Create New Objects: Create Magic Rock at (10, 167) from Dot 5
Dot 5: Set alterable value A to 1
Magic Rock: Stop
Counter 1: Set counter to 0

Setting Event 70 in motion

Events 67-69: These events control the production of new Magic Rocks if the original ones are destroyed by Alien 7s. The system is somewhat complex, and uses Dot 5s (which are scattered along the upper and lower edges of the play area and hidden in the mountains). If all the Magic Rocks have been destroyed, one new rock is created each second until three new rocks have been created.

68. Alterable value A of Dot 5 = 1
+ Every 01'00"
+ Pick one of Dot 5
+ Alterable value C of Space Vixen = 0
Create New Objects: Create Magic Rock at (-2, 157) from Dot 5
Magic Rock: Stop
Counter 1: Add 1 to Counter

69. Counter 1 = 2

Results of Event 70: Falling Rocks fall; Roundheads are destroyed.

Dot 5: Set alterable value A to 0
Counter 1: Set counter to 0

70. Collision between Magic Rock and Power Up 4

Sound: Play sample pulselec (uninterruptible)
Falling Rock: Start
Set speed to 20

Events 70-72: If a Magic Rock hits Power Up 4, then this starts the Falling Rocks in motion. They, in turn, will crash into the Roundheads and destroy them. Now the player can go talk to the Space Vixen. When the Falling Rocks reach the end of their paths, they are destroyed.

71. Collision between Falling Rock and Roundhead

Sound: Play sample help
Roundhead: Sub 100 to alterable value A

72. Falling Rock as reached the end of its path

Falling Rock: Destroy

73. Alterable value C of Space Vixen = 1

+ Every 01'00"
Counter 2: Add 1 to counter

Events 73 & 74: Once Normal Guy has touched Space Vixen and her alterable value C is set to 1, then the message is displayed on the screen and the counter starts to add up. Once three seconds have passed, the game jumps to Frame 5.

74. Counter 2 = 3

GSC: Jump to frame number 5
Counter 2: Set counter to 0
Text 3: Erase

75. Collision between Normal Guy and Door 1

+ lives ("Player 3") mod 10 >= 4
Sound: Play sample boom4 (uninterruptible)
Bomb: Set position at (35, 33) from Door 1
Change animation sequence to Bomb

Events 75 & 76: When the player returns to this frame with the Bomb, then Normal Guy can blow up Door 1 (basically by walking into it). Otherwise, he bounces off the door.

76. Collision between Normal Guy and Door 1

+ lives ("Player 3") mod 10 < 4
Sound: Play sample gong (uninterruptible)
Normal Guy: Bounce

77. Collision between Magic Rock and Door 1

Sound: Play sample clang1
Magic Rock: Bounce

78. Collision between Alien 7 and Door 1

Alien 7: Bounce

79. random(30) = random(100)

+ no more Potion in zone (213, 115) to (426, 320)

+ Every 00'10"

+ Counter 3 < 4

Create New Objects: Create Potion at (315, 230)

Counter 3: Add 1 to counter

Event 79: This event causes a Potion to appear at random intervals as long as Counter 3 is less than 4. Once Counter 3 reaches four, no more Potions will be created.

80. Collision between Magic Rock and A Plate

Magic Rock: Bounce

81. Collision between Normal Guy and A Plate

Normal Guy: Bounce

82: Collision between Alien 7 and A Plate

Alien 7: Bounce

83. Bomb animation Bomb is over

A Plate: Destroy

Door 1: Destroy

Bomb: Destroy

Events 84-87 correspond with Events 91-94 of Frame 1 and aren't reprinted here.

Ten: Normal's Quest (Frame 5)

The Driving Sequence

This frame is fun, but it was a lot of work to figure out. The idea was to have Normal Guy get in a vehicle and drive. The challenge was to simulate movement in KNP. The result might not be in every way elegant, but it does work. Unfortunately, some of my earlier ideas had to be abandoned because my computer was too slow.

Much of the control of this level is handled through the Jeep alterable value C.

Active Objects

In addition to the Standard Objects, there are several new Frame Specific Objects.

Frame Specific Objects

Jeep
Description: Off Road Vehicle from Warriors library
Movement: Ball

Dot 3
Description: Dot

Up Mountains
Description: From Heaven, Earth, Fire and Water library

Down Mountains
Description: Upside down mountains

Note: Originally, the mountains were turned into active objects so they could be scrolled using the same techniques I used to scroll Magic Rock 2 (see the Event List). However, this slowed down the computer too much, so I abandoned the idea.

Particle
Description: Piece of Magic Rock
Movement: Ball

Just take a duplicate of the Magic Rock image and make a fragment of it.

Alien 7
Description: From Aliens library
Movement: Ball

Custard Pie Splat
Description: From Special Effects library

Wallop
Description: From Special Effects library

Magic Rock 2
Description: Big rock
Movement: Taped

Note: This was made by modifying the Magic Rock to make a small boulder. The path for this object is a straight line leading from right to left across the screen.

End
Description: Metal Plate
Movement: Taped(straight line from right to left)

Note: This is the Metal Plate 2 object from the Textures library, rotated 90 degrees.

Blizzard
Description: From Heaven, Earth, Fire and Water library
Movement: Taped (same as Magic Rock 2)

Magic Rock
Description: Rock from Heaven, Earth, Fire and Water library made an active object and renamed
Movement: Ball

Super Star
Description: From Heaven, Earth, Fire and Water library

Potion
Description: From Collectable Items library
Movement: Ball

Backdrop Objects

Quick Backdrop 1
Description: Same as in Frame 4

Game Objects
Counter 1
Display as: Horizontal Bar (Solid Red)
Intial value: 0
Minimum value: 0
Maximum value: 20

Note: This counter is used as a speed gau

Counter 2
Display as: Hidden
Intial value: 0
Minimum value: 0
Maximum value: 999999999

Counter 3
Display as: Hidden
Intial value: 0

Minimum value: 0
Maximum value: 999999999

Counter 4
Display as: Horizontal Bar (Gradiated dark green to light green)
Intial value: 0
Minimum value: 0
Maximum value: 500

Note: This counter is used to indicate the amount of damage to the Jeep.

Counter 5
Display as: Horizontal Bar (Gradiated dark red to light yellow)
Intial value: 0
Minimum value: 0
Maximum value: 5000

Note: This counter is used to represent the amount of time/distance remaining in the driving sequence.

Text 1
Text: Score

Text 2
Text: Gold

Text 3
Text: Jeep

Text 4
Text: Speed

Text 5
Text: Hey! You made it!

Event List
Important Note: The first part of this Event List is similar to the previous frames; however there is one important modification. The condition "Alterable value A of Jeep = 0" must be added to the attack events. Using Frame 1 as a reference, this condition would be added to Events 9-11 and 33-38 of Frame 1.

1. Start of Level
+ Number of Lives of Player 4 < 100

Event 1: This event is identical to all the other first Start of Level events and is used to test the frame when not playing the entire game. In addition to the appropriate settings for the global variables listed in previous frames, the conditions in Event 2 below should be added. Events 3 and 4 set the Shield objects by reading the state of Player 1 Lives (as in Frame 1 Events 3 & 4).

2. Start of Level
+ Number of Lives of Player 4 mod 10 > 0
Normal Guy: Set direction to "up"

Set alterable value A to 0
Change animation sequence to Walking
Shield: Set position at (50, 30)
Jeep: Set alterable value A to 0
Stop
Set alterable value C to 500
Particle: Destroy
Alien 7: Set alterable value B to 100
Magic Rock 2: Stop
End: Stop
Set alterable value A to 0
Blizzard: Stop
Magic Rock: Stop
Counters 1-4: Set counter to 0
Counter 5: Set counter to 5000
Fireball 2: Destroy
Gangster: Set position at (948, 371)
Pint of Suds: Set position at (948, 371)
Pint of Suds 2: Set position at (948, 371)

Events 7-33 are pretty much the same as those in Frame 14-38. Two conditions were added to position the Flame Thrower and the Magic Sword in Normal Guy's hands whenever animation Attack is playing. These are optional since neither weapon is useful in this frame.

34. Collision between Normal Guy and Jeep

Normal Guy: Set position at (-3, 23) from Jeep
Jeep: Set alterable value A to 1

Event 34: Touching the Jeep sets the rest of this level in motion. First, alterable value A of the Jeep is set to 1.

35. Always

+ Alterable value A of Jeep > 0
Normal Guy: Change animation sequence to Appearing
Change animation direction to "right"
Set position at (-5, 1) from Jeep

Event 35: Once the Jeep has been touched, its alterable value A is set to 1 (and later to 2). From here on, Normal Guy is placed on top of the Jeep and his animation sequence is changed to a custom image in the animation sequence Appearing. This image is simply one of the Attack frames.

36. Repeat while "Right Arrow" is pressed

+ Alterable value A of Jeep = 1
+ Every 00'10"
+ Counter 1 < 6
Normal Guy: Ignore Control
Counter 1: Add 1 to counter

Events 36-40: While the alterable value A of Jeep is 1, pressing the right and left arrow keys add or subtracts from Counter 1. Event 38 reads this value and moves the Jeep forward by

the value of Counter 1. This is a crude speed control to give the illusion that the player is controlling the Jeep's accelerator, which is repesented by the horizontal bar of Counter 1. Events 39 & 40 move the Jeep up or down according to the value of Counter 1.

37. Repeat while "Left Arrow" is pressed
+ Alterable value A of Jeep = 1
+ Every 00'10"
+ Counter 1 >= 0
Normal Guy: Ignore Control
Counter 1: Subtract 1 from counter

38. Every 00'01"
+ Alterable value A of Jeep = 1
Jeep: Set X position to X("Jeep") + value ("Counter 1")

39. Repeat while "Up Arrow" is pressed
+ Alterable value A of Jeep = 1
Normal Guy: Ignore Control
Jeep: Set Y position to Y("Jeep") - value ("Counter 1") / 2

40. Repeat while "Down Arrow" is pressed
+ Alterable value A of Jeep = 1
Normal Guy: Ignore Control
Jeep: Set Y position to Y("Jeep") + value ("Counter 1") / 2

41. Number of Jeep in zone (446, 4) to (643, 474) = 1
+ Alterable value A of Jeep < 2
Sword: Set alterable value C to 1
Jeep: Set alterable value A to 2
Magic Rock 2: Start
Set speed to value("Counter 1") * 3 + 1
Blizzard: Start
Set speed to value("Counter 1") * 3 + 1
Counter 1: Set counter to 0

Event 41: Once the Jeep has moved forward almost to the right edge of the play area (and its alterable value A is less than 2), this event sets alterable value A to 2 and sets Magic Rock 2 and Blizzard (which are both outside the play area) in motion. It also sets the accelerator (Counter 1) to zero.

42. Every 00'10"
+ Alterable value A of Jeep = 2
Jeep: Set X position to X("Jeep") - 2

Event 42: This event causes the Jeep to move slowly to the left if no other keys are pressed.

43. Every 00'01"
+ Alterable value A of Jeep = 2
Magic Rock: Set X position to X("Magic Rock") - value ("Counter 1")

Event 43: This event causes the Magic Rock to move to the left at a speed equivalent to the value of Counter 1, which gives the illusion that the rocks move faster as the speed increases.

44. Alterable value A of Jeep = 2

+ Every 00'25"
    Player 4: Add value ("Counter 1") / 10 to Score

Event 44: This event adds a value to the player's score based on the accelerator value. The "faster" the player drives, the faster the points accumulate.

45. Alterable value A of Jeep = 2

+ Every 01'00
    Counter 4: Set counter to Value C("Jeep")
    Counter 5: Subtract value ("Counter 1") from Counter

Event 45: This event tracks the Jeep's health once every second by setting alterable value C to Counter 4. It also subtracts the current "speed" from Counter 5. When Counter 5 gets to zero, the level is completed, so the faster the player drives, the quicker the level can be completed.

46. Alterable value A of Jeep = 2

+ Every 1:00'00"
    Create New Objects: Create Potion at (451, 180)

Event 46: This event creates a healing potion once every minute.

47. Alterable value A of Jeep = 2

+ Repeat while Space bar is pressed
    Normal Guy: Change animation sequence to Whirl
    Sword: Change animation sequence to S Whirl
        Set position to (0, 0) from Normal Guy
        Set direction to random direction (out of 32)

Events 47-48: These events control the special attacks that happen when the player is driving. Event 47 changes Normal Guy to a special animation that looks as if he's whirling around. The Sword is placed at (0, 0) from Normal Guy and is set to a random direction. When the Space bar is pressed, it appears as if the Sword is spinning around wildly. In Event 48, the Jeep shoots Super Star bullets, eight at a time.

48. Alterable value A of Jeep = 2

+ Repeat while Space bar is pressed
+ Number of Super Star < 8
    Sound: Play sample automat1 (uninterruptable)
    Jeep: Shoot Super Star toward "right" at speed 100

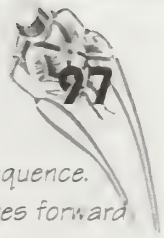
49. Alterable value A of Jeep = 2

+ Normal Guy animation Appearing is playing
    Sword: Set position at (-50, 140)

Event 49: When the Space bar is not pressed, animation sequence Appearing is displayed, and when this is true during the driving, the Sword is placed out of the play area.

50. Repeat while "Right Arrow" is pressed

+ Alterable value A of Jeep = 2
+ Every 00'10"
+ Counter 1 < 20
    Normal Guy: Ignore Control
    Jeep: Set X position to X("Jeep") + 1
    Counter 1: Add 1 to counter



Events 50-53: These events control the movement of the Jeep during the driving sequence. There's a sense of slow acceleration until Counter 1 gets up to 9, then the Jeep moves forward more quickly. Pressing on the Left Arrow key makes the accelerator decrease and moves the Jeep backward. However, the best way to play this level is to keep the Space bar pressed and keep the Right Arrow key down when you want to go forward. Release the Right Arrow key when you want to go backward. Ignore the Left Arrow key altogether.

51. Repeat while "Left Arrow" is pressed
+ Alterable value A of Jeep = 2
+ Every 00'10"
+ Counter 1 > 0

    Normal Guy: Ignore Control
    Jeep: Set X position to X("Jeep") + 1
    Counter 1: Add 1 to counter

52. Repeat while "Right Arrow" is pressed
+ Alterable value A of Jeep = 2
+ Counter 1 > 9

    Jeep: Set X position to X("Jeep") - 4

53. Repeat while "Left Arrow" is pressed
+ Alterable value A of Jeep = 2
+ Counter 1 < 10

    Jeep: Set X position to X("Jeep") - 2

54. Jeep leaves the play area on the left or right
    Jeep: Wrap

Events 54-84: These events are pretty self-explanatory. If you've understood this game so far, you should have no trouble understanding these events. Note that destroying Alien 7s and, to a lesser extent, Magic Rocks and Particles, subtracts from Counter 5, and therefore shortens the level.

55. Jeep leaves the play area on the bottom or top
    Jeep: Bounce
        Set X position to X("Jeep") - 10

56. Collision between Jeep and Potion
+ Number of lives of Player 1 = 1
+ Score of Player 1 >= 50

    Player 1: Set Score to 100
    Jeep: Add 50 to alterable value C

57. Collision between Jeep and Potion
+ Number of lives of Player 1 = 2
+ Score of Player 1 >= 150

    Player 1: Set Score to 200
    Jeep: Add 50 to alterable value C

58. Collision between Jeep and Potion
+ Number of lives of Player 1 = 3

+ Score of Player 1 >= 250
    Player 1: Set Score to 300
    Jeep: Add 50 to alterable value C

59. Collision between Jeep and Potion
+ Number of lives of Player 1 = 1
+ Score of Player 1 < 50
    Player 1: Add 50 to Score
    Jeep: Add 50 to alterable value C

60. Collision between Jeep and Potion
+ Number of lives of Player 1 = 2
+ Score of Player 1 < 150
    Player 1: Add 50 to Score
    Jeep: Add 50 to alterable value C

61. Collision between Jeep and Potion
+ Number of lives of Player 1 = 3
+ Score of Player 1 < 250
    Player 1: Add 50 to Score
    Jeep: Add 50 to alterable value C

62. Collision between Normal Guy and Alien 7
    Sound: Play sample boinghi

63. Collision between Normal Guy and Magic Rock
    Sound: Play sample ball6
    Normal Guy: Bounce
    Magic Rock: Bounce

64. Collision between Sword and Alien 7
    Sound: Play sample stab1
    Alien 7: Sub 20 to alterable value B

65. Collision between Sword and Magic Rock
    Sound: Play sample sword2
    Create New Objects: Create Particle at (3, 3) from Sword
        Create Particle at (-3, 3) from Sword
    Magic Rock: Destroy
    Counter 5: Subtract 10 from counter

66. Collision between Glooper and Alien 7
    Sound: Play sample whizz1
    Alien 7: Sub 10 to alterable value B

67. Magic Rock collides with the background
    Magic Rock: Bounce

68. Alien 7 leaves the play area on the left or right
    Alien 7: Bounce

69. Collision between Magic Rock and Alien 7
    Alien 7: Sub 10 to alterable value B
        Bounce
    Magic Rock: Bounce

70. Alien 7 collides with the background
Alien 7: Bounce

71. Magic Rock leaves the play area
Magic Rock: Bounce

72. Collision between Alien 7 and Up Mountains
Alien 7: Bounce
Set speed to Speed ("Alien 7") + 5
Look at (238, -2) from Jeep

73. Collision between Alien 7 and Up Mountains
Alien 7: Bounce
Set speed to Speed ("Alien 7") - 5
Look at (163, 0) from Jeep

Events 74-81 involve collisions between active objects (Jeep, Magic Rock, Particle, Alien 7, and Normal Guy) and the Up Mountain and Down Mountain objects. In each case, the active object bounces.

82. Collision between Jeep and Alien 7
Sound: Play sample horn1
Create New Objects: Create Wallop at (1, 1) from Alien 7
Jeep: Bounce
Sub 20 to alterable value C
Alien 7: Bounce
Sub 20 to alterable value B

83. Collision between Jeep and Magic Rock
Jeep: Bounce
Sub 10 to alterable value C
Magic Rock: Bounce

84. Collision between Jeep and Magic Rock 2
Sound: Play sample boom2
Create New Objects: Create Wallop at (4, 4) from Magic Rock 2
Jeep: Sub 30 to alterable value C

85. Alterable value A of Jeep = 2
+ Every 02'00"
+ Pick on of Dot 3
Create New Objects: Create Magic Rock at (0, 0) from Dot 3

Events 85-87: There is a line of Dot 3s just to the right of the play area. That is where the game creates new Magic Rocks and Alien 7s, picking a Dot 3 at random, according to the conditions in these events.

86. Alterable value A of Jeep = 2
+ Every 01'00"
+ Pick on of Dot 3
Create New Objects: Create Magic Rock at (0, 15) from Dot 3

87. Alterable value A of Jeep = 2
+ Every 06'00"
+ Pick on of Dot 3
+ Number of Alien 7 in zone (-45, -36) to (724, 522) < 5

Create New Objects: Create Alien 7 at (0, 0) from Dot 3
Alien 7: Set direction to random direction out of 9 (12-20)
Set speed to 60
Set alterable value B to 100

88. Alterable value B of Alien 7 <= 0

Create New Objects: Create Custard Pie Splat at (0, 0) from Alien 7
Player 4: Add 75 to Score
Alien 7: Destroy
Counter 5: Subtract 200 from counter

89. Custard Pie Splat animation Stopped is over

Custard Pie Splat: Destroy

90. Collision between Super Star and Alien 7

Sound: Play sample stopper
Alien 7: Sub 10 to alterable value B

91. Collision between Super Star and Magic Rock

Sound: Play sample hit3
Create New Objects: Create Particle at (1, 1) from Magic Rock
Create Particle at (-1, -2) from Magic Rock
Magic Rock: Destroy

92. Collision between Super Star and Particle

Sound: Play sample ball1
Player 4: Add 5 to Score
Particle: Destroy
Counter 5: Subtract 5 from counter

93. Collision between Sword and Particle

Sound: Play sample ball6
Player 4: Add 10 to Score
Particle: Destroy
Counter 5: Subtract 10 from counter

94. Alterable value C of Jeep <= 0

Normal Guy: Set alterable value A to 1
Jeep: Change animation sequence to Crash

95. Collision between Jeep and Alien 7

+ Alterable value C of Jeep <= 0
GSC: Restart Current Level
Player 1: Set Score to lives("Player 1") * 100
Player 4: Subtract 1000 from Score
Jeep: Add 500 to alterable value C

96. Collision between Jeep and Magic Rock 2

+ Alterable value C of Jeep <= 0
GSC: Restart Current Level
Player 1: Set Score to lives("Player 1") * 100
Player 4: Subtract 1000 from Score
Jeep: Add 500 to alterable value C

97. Collision between Jeep and Magic Rock

+ Alterable value C of Jeep <= 0

GSC: Restart Current Level
Player 1: Set Score to lives("Player 1") * 100
Player 4: Subtract 1000 from Score
Jeep: Add 500 to alterable value C

98. Counter 5 <= 0

Normal Guy: Set alterable value A to 3
End: Start
Text 5: Flash paragraph 1 at (359, 99) for 00'30"

Events 98-100: Once time has run out (Counter 5 reaches 0), then Normal Guy's value A is set to 3, the object called End is started in motion, and a congratulatory paragraph is flashed on the screen. When End collides with the Jeep and Value A of Normal Guy is 3, then a sound is played and End is stopped. In Event 100, if Normal Guy value A is 3 and End is stopped, the program jumps to Frame 6.

99. Collision between Jeep and End

+ Alterable value A of Normal Guy = 3

Sound: Play sample powerdwn (uninterruptable)
End: Stop

During the driving sequence: Notice that Normal Guy is perched on the Jeep. Rocks are flying by and Alien 7s are floating around. The top gauge is the time/distance remaining. On the bottom left is the Jeep's health gauge. On the right is the speed readout. Score, gold, and shields are also shown, as usual.

The zero in the middle of the screen is a variable left in during testing and was removed from the "final" game.

100. Alterable value A of Normal Guy = 3

+ End is stopped

GSC: Jump to frame number 6

101. Wallop animation Stopped is over

Wallop: Destroy

102. Upon pressing "B"

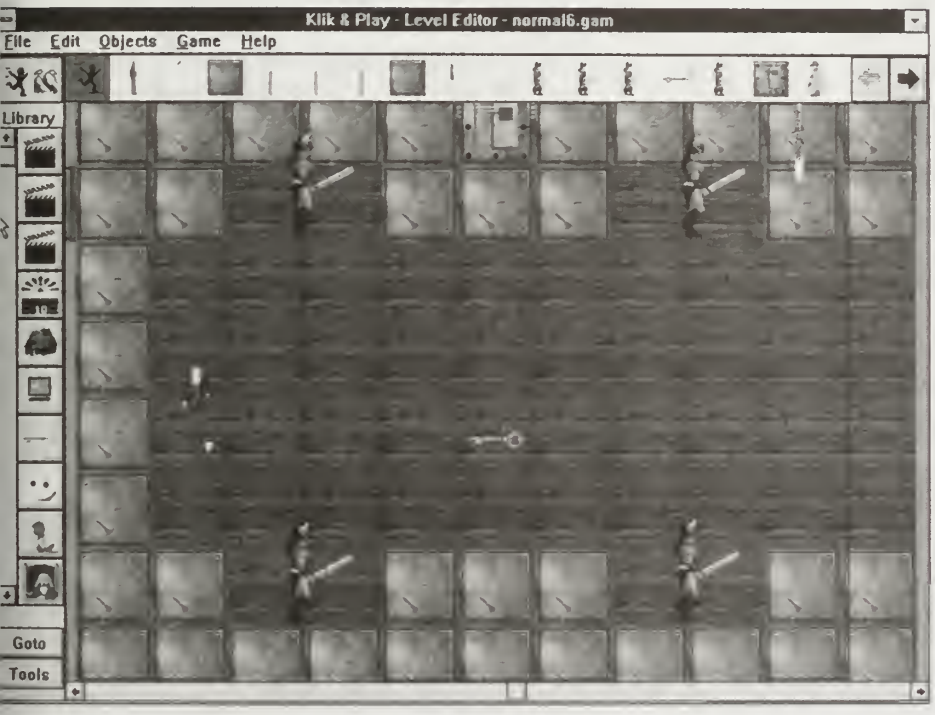
Counter 5: Subtract 1000 from Counter 5

Event 102: This is a cheat I built in for testing the game and getting through this level quickly. Simply press "B" repeatedly during the driving sequence to make a short trip out of it.

Events 103-106 are exactly the same as events 91-94 of Frame 1. The only exception is that in Event 94, the Player 1 condition should read "Add 50 to Number of Lives."

Eleven: Normal's Quest (Frame 6)

Cave Pass 1



This is a simple frame but serves a purpose in the game. What happens is that the player enters and finds a key lying unguarded. However, when the Key is touched, four Barbarians appear and converge on the player. If the four Barbarians are defeated, the Key reappears and a doorway opens leading up to the Crossroads. Leaving this frame to the right also leads to the Crossroads level, but without the Key from this level, the player will wind up in a loop with no ending. The Key in Cave Pass 1 must be obtained to proceed further in the game.

Active Objects

In addition to the usual objects, there are the following Frame Specific Objects:

A Plate
Description: Metal Plate

A Plate 2
Description: Another Metal Plate

Barbarian, Barbarian 2, Barbarian 3, Barbarian 4
Description: Fully animated characters from library of same name
Movement: Ball

Note: I colored in the tatoo on the Barbarian's arm (in the Stopped animation). Each of the four Barbarians gets a different color. Barbarian gets Blue, Barbarian 2 gets Green, Barbarian 3 gets Lavender, and Barbarian 4 gets Red. This is significant in Frame 9.

Key
Description: Key

Door 1
Description: Metal Plate with door

Backdrop Objects

Wood 1
Description: Wood tile
Background object, no obstacle

Note: This tile was placed using the Snap to Grid functions described in Chapters 1 and 2.

Metal Plate 1
Description: Same as A Plate, but not active
Background Object, obstacle

Game Objects

Counter 1
Display as Hidden
Initial Value: 0
Minimum: 0
Maximum: 999999999

Event List

1. Start of Level
+ Number of lives of Player 4 < 100

Event 1: This event is used during testing the individual frame. Basic global variable information is set up here in addition to the conditions set in Event 2.

2. Start of Level
+ lives of Player 4 mod 10 > 0

Normal Guy: Set direction to "right"
Set position at (92, 275)
Shield: Set position at (50, 30)
Key: Set alterable value A to 0
Door 1: Set alterable value A to 0
Barbarians (1-4): Make invisible
Stop
Change animation sequence to Stopped
Change direction to "right"
Set alterable value A to 0
Gangster: Set position at (948, 371)
Fireball 2: Destroy
Pint of Suds: Set position at (948, 371)
Sword Icon: Set position at (122, 250)
Pint of Suds 2: Set position at (948, 371)

Events 3 & 4 control the the placement of Shield objects depending on the value of Player 1 Lives. See Frame 1, Events 3 & 4.

5. Start of Level
+ lives ("Player 2") mod 10 = 2

Normal Guy: Set position at (587, 227)
Set direction to "left"

6. Normal Guy leaves the play area on the top
    GSC: Jump to frame number 7
    Player 2: Set Number of Lives to lives ("Player 2") / 10 * 10 + 3

7. Normal Guy leaves the play area on the right
    GSC: Jump to frame number 7
    Player 2: Set Number of Lives to lives ("Player 2") / 10 * 10 + 4

8. Normal Guy collides with the background
    Normal Guy: Stop

Events 9-33 correspond with 14-38 of Frame 1.

34. Score of Player 1 >= 300
+ Score of Player 3 = 33
+ Repeat while Space bar is pressed
+ Every 00'10"
    Magic Sword: Shoot Super Star toward random direction (out of 32) at speed 58

35. Collision between Normal Guy and A Plate
    Normal Guy: Bounce

36. Collision between Normal Guy and A Plate 2
    Normal Guy: Bounce

37. Collision between Normal Guy and Key
    Key: Set position at (348, 132)
    Barbarians (1-4): Set alterable value A to 1
        Reappear

Event 37: When Normal Guy goes for the Key, look out! There are four nasty Barbarians after him. He'll have to take them out to get the Key.

38. No more Barbarian in zone (-3, 10) to (700, 500)
+ No more Barbarian 2 in zone (-3, 10) to (700, 500)
+ No more Barbarian 3 in zone (-3, 10) to (700, 500)
+ No more Barbarian 4 in zone (-3, 10) to (700, 500)
    Key: Set alterable value A to 1
    A Plate 2: Destroy

Event 38: When all four Barbarians are destroyed (or run away), then Normal Guy can get the Key because its alterable value A is set to 1. Also, A Plate 2 is destroyed to open the way to Door 1.

39. Alterable value A of Key = 1
+ Collision between Normal Guy and Key
    Player 3: Set Number of Lives to lives ("Player 3") / 10 * 10 + 1
    Key: Set alterable value A to 2
        Set position at (-60, 170)
    Door 1: Set alterable value A to 1

Event 39: Normal Guy gets the Key now that the Barbarians are all gone, and Player 3 Lives is changed to reflect that the Key has been obtained. This will be read in the next frame. Also,

Door 1's alterable value A is set to 1, which triggers event 41.

40. Collision between Normal Guy and Door 1

+ Alterable value A of Key = 2

Normal Guy: Bounce
Key: Set alterable value A to 3

Event 40: Just to keep Normal Guy from getting out the door too soon.

41. Alterable value A of Door 1 = 1

+ Every 00'20"
+ Counter < 50

Player 1: Ignore Control
Door 1: Set X position to X("Door 1") - 1
Counter 1: Add 1 to counter

Event 41: The counter starts and the door slides open. When the counter gets to 50, it stops. During that time, the player can't move.

42. Alterable value A of Barbarian = 1

+ Every 01'00"

Barbarian: Start
    Set speed to 35
    Look at (-5, -26) from Normal Guy
    Change animation sequence to Walking
Barbarian 4: Start
    Set speed to 35
    Look at (-5, -26) from Normal Guy
    Change animation sequence to Walking

Events 42 & 43: When Normal Guy touches the Key (in Event 37) the Barbarians are made visible and their values A are changed to 1, making Events 42 & 43 true. Now they look near Normal Guy every so often and start walking toward him.

43. Alterable value A of Barbarian = 1

+ Every 01'50"

Barbarian 2: Start
    Set speed to 35
    Look at (-5, -26) from Normal Guy
    Change animation sequence to Walking
Barbarian 3 : Start
    Set speed to 35
    Look at (-5, -26) from Normal Guy
    Change animation sequence to Walking

44. Collision between Normal Guy and Barbarian

+ Alterable value A of Barbarian = 1

Sound: Play sample rifle3
Player 1: Subtract 20 from Score

Events 44-47: What happens when Normal Guy collides with a Barbarian. He gets hurt. Repeat Event 44 for each of the Barbarians (2-4).

48. Collision between Sword and Barbarian

+ Alterable value A of Barbarian = 1

Sound: Play sample Axeclang
Player 4: Add 150 to Score
Barbarian: Destroy

Events 48-51: What happens when the Sword and a Barbarian meet. The Barbarian loses. The player gains points. Repeat Event 48 for each of the Barbarians (2-4)

52. Counter 1 >= 50

Door 1: Set alterable value A to 0
Counter 1: Set counter to 0

Event 50: This sets the end of the door opening sequence.

Events 53-60: Add events to make the Barbarians bounce when they collide with the background or leave the play area.

61. Upon pressing "H"

+ lives of Player 4 / 100 = 8

Player 1: Set Score to lives Player 1 * 100

62. End of Level

Sound: Play sample cuckoo1

63. Upon pressing "F1"

GSC: Jump to frame number 14
Player 1: Add 60 to Number of Lives

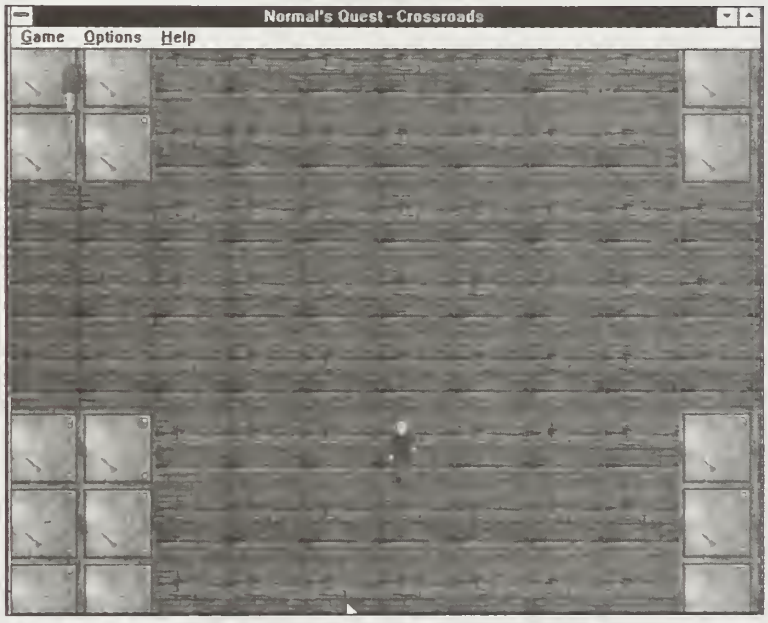
Opening the door...

Twelve: Normal's Quest (Frame 7)

The Crossroads

This is a very simple frame but can be very tricky in the game. The Crossroads is an intersection that leads to other parts of the game. However, where it leads to depends on whether the player has completed certain tasks. In particular, the player must have obtained the Key in Frame 6 (which is tracked in Player 3 Lives (see Event 39 in Frame 6). If the player tries to go up (or north) in the Crossroads, the game reads the value of Player 3 Lives to see if the Key was obtained. If so, then the player goes to Frame 9. If not, the game loops back to the Crossroads again. Likewise, going right (east) takes the player to Frame 8, but the player will loop back to the Crossroads from Frame 8 unless the second key (in Frame 9) has been obtained.

Note that some events are meaningless in this frame since there are no enemies here and therefore no way to lose hit points or gain score, gold, etc.



Active Objects

In addition to the usual objects, there are the following Frame Specific Objects:

A Plate

Description: Metal Plate from Textures library

A Plate 2

Description: Another Metal Plate

Backdrop Objects

Wood 1

Description: Wood tile from Textures library
Background object, no obstacle

Note: This tile was placed using the Snap to Grid functions described in Chapters 1 & 2.

Metal Plate 1

Description: Same as A Plate, but not active
Background Object, obstacle

Event List

1. Start of Level
+ Number of lives of Player 4 < 100

Event 1: This event is used during testing the individual frame. Basic global variable information is set up here in addition to the conditions set in Event 2.

2. Start of Level
+ lives of Player 4 mod 10 > 0

Normal Guy: Set direction to "right"
Set position at (92, 275)
Shield: Set position at (50, 30)
Gangster: Set position at (948, 371)
Fireball 2: Destroy
Pint of Suds: Set position at (948, 371)
Sword Icon: Set position at (122, 250)
Pint of Suds 2: Set position at (948, 371)

Events 3 & 4 control the the placement of Shield objects depending on the value of Player 1 Lives. See Frame 1, Events 3 & 4.

5. Start of Level
+ lives ("Player 2") mod 10 = 1

Normal Guy: Set position at (337, 93)
Set direction to "down"

6. Start of Level
+ lives ("Player 2") mod 10 = 2

Normal Guy: Set position at (591, 218)
Set direction to "left"

7. Start of Level
+ lives ("Player 2") mod 10 = 3

Normal Guy: Set position at (334, 436)
Set direction to "up"

8. Start of Level
+ lives ("Player 2") mod 10 = 4

Normal Guy: Set position at (119, 241)
Set direction to "right"

9. Normal Guy collides with the background
Normal Guy: Stop

10. Normal Guy leaves the play area on the left
+ Number of lives of Player 3 < 11

GSC: Jump to frame number 6
Player 2: Set Number of Lives to lives ("Player 2") / 10 * 10 + 2

Events 10-16: If the player hasn't gotten the Key in Frame 6, then Crossroads only leads to Crossroads or back to Frame 6. If the player has gotten the Key, then it is possible to go out the top to Frame 9, or to the right or left to Frame 8. Going out the bottom always leads back to Crossroads.

11. Normal Guy leaves the play area on the left
+ Number of lives of Player 3 >= 11
GSC: Jump to frame number 8
Player 2: Set Number of Lives to lives ("Player 2") / 10 * 10 + 2

12. Normal Guy leaves the play area on the right
+ Number of lives of Player 3 < 11
GSC: Jump to frame number 7
Player 2: Set Number of Lives to lives ("Player 2") / 10 * 10 + 4

13. Normal Guy leaves the play area on the right
+ Number of lives of Player 3 >= 11
GSC: Jump to frame number 8
Player 2: Set Number of Lives to lives ("Player 2") / 10 * 10 + 4

14. Normal Guy leaves the play area on the top
+ Number of lives of Player 3 < 11
GSC: Jump to frame number 7
Player 2: Set Number of Lives to lives ("Player 2") / 10 * 10 + 3

15. Normal Guy leaves the play area on the top
+ Number of lives of Player 3 >= 11
GSC: Jump to frame number 9

16. Normal Guy leaves the play area on the bottom
GSC: Jump to frame number 7
Player 2: Set Number of Lives to lives ("Player 2") / 10 * 10 + 1

Events 17-41 correspond with 14-38 of Frame 1.

42. Collision between Normal Guy and A Plate
Normal Guy: Bounce

43. Collision between Normal Guy and A Plate 2
Normal Guy: Bounce

44. Upon pressing "H"
+ lives of Player 4 / 100 = 8
Player 1: Set Score to lives Player 1 * 100

45. End of Level
Sound: Play sample cuckclok

46. Upon pressing "F1"
GSC: Jump to frame number 14
Player 1: Add 60 to Number of Lives

Thirteen: Normal's Quest (Frame 8)

The Platform Game

Active Objects

Normal Guy

Movement: Platform

Note: A new animation was created for this frame. It is simply one frame from the Jumping animation sequence. It is used to make Normal Guy hang from the bars.

Frame Specific Objects

Silver Block

Description: From Blocks library

A Fire

Description: Fire object from Frame 3

Long Plat

Description: Laser 9 from Laser library, streched long and thin.

Blizzard

Description: From Heaven, Earth, Fire and Water library

Fireball 3

Description: From Spaceship Weapons library

This frame is quite different from the others in Normal's Quest. It's set up as a platform type of game, where you have to jump from one place to another. Even Normal Guy himself is set to platform movement instead of his "normal" eight direction movement.

The key to this frame, literally, is the key obtained in Frame 9. With it, the player can proceed to Frame 10. Otherwise, the player is stuck in a loop between this frame and Frame 7.

Fireball 4
Description: Fireball 3 rotated 180 degrees

Star
Description: From Pinball library

Long Plat 2
Description: Clone of Long Plat

Door Open
Description: From Special Effects library

Swampie
Description: Swimming swamp creature from Myth & Monsters library

Dragon
Description: Dragon from Myth & Monsters library

Cobra
Description: Snake from Animals & Birds library

Money
Description: From Collectable Items library

Exit Door
Description: Old Door from Building Blocks library

Throwing Star
Description: Throwing weapon from Hand Weapons library

Animating Throwing Star
Description: What it sounds like (also from Hand Weapons library)

Potion
Description: From Collectable Items library

Wallop
Description: From Special Effects library

Explosion 5
Description: From Explosions library

Ball with Arrows
Description: Circle with arrows from Pinball library

Backdrop Objects

Quick Backdrop 1
Description: Same backdrop as used in Frame 4

B Block 1
Description: Silver Block from Blocks library
Backdrop object, platform

B Block 2
Description: Longer silver block
Backdrop object, platform

Magic Stalk Base
Description: From Vegetation library
Backdrop object, ladder

Magic Stalk 1
Description: From Vegetation library
Backdrop object, ladder

Magic Stalk 2
Description: From Vegetation library
Backdrop object, ladder

Game Objects

Counter 2
Display as: Hidden
Intial: 0
Minimum: 0
Maximum: 999999999

Text 1
Text: "You still need the key..."

Event List

1. Start of Level
+ Number of lives of Player 4 < 100

Event 1: This event is used during testing the individual frame. Basic global variable information is set up here in addition to the conditions set in Event 2.

2. Start of Level
+ lives of Player 4 mod 10 > 0

Sword: Set alterable value B to 0
Shield: Set position at (50, 30)
Long Plat: Set alterable value A to 0
Long Plat 2: Set alterable value A to 0
Door Open: Stop animation
Swampie: Set alterable value A to 0
Dragon: Set alterable value A to 500
Cobra: Set alterable value A to 50
Exit Door: Set alterable value A to 0
Throwing Star: Set alterable value A to 0
Gangster: Set position at (948, 371)
Fireball 2: Destroy
Pint of Suds: Set position at (948, 371)
Sword Icon: Set position at (122, 250)
Pint of Suds 2: Set position at (948, 371)
Counter 2: Set counter to 0

Events 3 & 4 control the the placement of Shield objects depending on the value of Player 1 Lives. See Frame 1, Events 3 & 4.

5. Start of Level

+ lives ("Player 2") mod 10 = 2

Normal Guy: Set direction to "left"
Change animation sequence to Stopped
Start animation
Set alterable value B to 0
Set position at (575, 160)

6. Start of Level

+ lives ("Player 2") mod 10 = 4

Normal Guy: Set direction to "right"
Change animation sequence to Stopped
Start animation
Set alterable value B to 0
Set position at (20, 326)

Events 5 & 6: These events control the placement of Normal Guy, depending on which direction he came from when he exited Crossroads.

7. Normal Guy collides with the background

Normal Guy: Stop
Long Plat: Set alterable value A to 0
Long Plat 2: Set alterable value A to 0

Event 7: The alterable value A of Long Plat and of Long Plat 2 are set to 0 when Normal Guy collides with the background. This is one way of resetting the values of these objects. In later events, you'll see how these variables work.

8. Normal Guy leaves the play area

Normal Guy: Stop

9. Upon pressing "Space bar"

+ Alterable value B of Sword = 0

Normal Guy: Change animation sequence to Attack
Change speed of animation to 10

Events 9-11: Alterable value B of the Sword is used to track whether the player has Throwing Stars or not. If not, then value B is set to 0 and normal attacks work.

10. Normal Guy animation Attack is playing

+ Score "Player 3" mod 10 = 1
+ Alterable value B of Sword = 0

Sword: Set position at (0, 0) from Normal Guy
Set direction to Dir "Normal Guy"

11. Repeat while "Space bar" is pressed

+ Score of Player 3 mod 10 = 2
+ Number of Fireball 2 in zone (0,0) to (640, 480) < 5
+ Alterable value B of Sword = 0

Create New Objects: Create Fireball 2 at (26, -5) from Normal Guy
Normal Guy: Change animation sequence to Attack
Change speed of animation to 10

Fireball 2: Start
Start animation
Set speed to 12
Set direction to Dir "Normal Guy"

12. Normal Guy animation Attack is playing
+ Score "Player 3" mod 10 = 2
+ Alterable value B of Sword = 0
Laser 4: Set position at (0, 0) from Normal Guy
Set direction to Dir "Normal Guy"

13. Normal Guy animation Attack is playing
+ Score "Player 3" = 33
Magic Sword: Set position at (0, 0) from Normal Guy
Set direction to Dir "Normal Guy"

14. Normal Guy animation Attack is over
Normal Guy: Change animation sequence to Stopped
Sword: Set position at (-100, 200)
Laser 4: Set position at (-100, 200)
Magic Sword: Set position at (-100, 200)

15. Repeat while "Right Arrow" is pressed
Sword: Set position at (-100, 200)

Events 15-18: Just to be sure the Sword is placed off screen when it isn't needed, these events were added.

16. Repeat while "Down Arrow" is pressed
Sword: Set position at (-100, 200)

17. Repeat while "Left Arrow" is pressed
Sword: Set position at (-100, 200)

18. Repeat while "Up Arrow" is pressed
Sword: Set position at (-100, 200)

Events 19-38 correspond with events 19-38 of Frame 1.

39. Collision between Normal Guy and Potion
Player 1: Set score to lives ("Player 1") * 100
Potion: Destroy

40. Normal Guy is overlapping Long Plat
+ Alterable value A of Long Plat = 0
Normal Guy: Set alterable value A to 1
Change animation sequence to Hanging

Events 40-43: These events are used to "attach" Normal Guy to the long platforms, Long Plat and Long Plat 2. The idea is to make Normal Guy seem to hang from these long platforms by setting his Y position to that of the platform when his alterable value A is 1.

41. Alterable value A of Normal Guy = 1
Normal Guy: Set Y position to Y("Long Plat")

42. Normal Guy is overlapping Long Plat 2
+ Alterable value A of Long Plat = 0
Normal Guy: Set alterable value A to 2
Change animation sequence to Hanging

43. Alterable value A of Normal Guy = 2
Normal Guy: Set Y position to Y("Long Plat 2")

44. X position of Normal Guy < 150
+ Y position of Normal Guy = Y("Long Plat")
Normal Guy: Change animation sequence to Jumping
Start animation
Set alterable value A to 0

Events 44 & 45: When Normal Guy has reached either end of Long Plat (as measured by its X position), his animation is changed to Jumping and alterable value A is set to 0. See also Events 51 & 52.

45. X position of Normal Guy > 350
+ Y position of Normal Guy = Y("Long Plat")
Normal Guy: Change animation sequence to Jumping
Start animation
Set alterable value A to 0

46. Animation Hanging is playing
+ Upon pressing "Down Arrow"
Normal Guy: Change animation sequence to Jumping
Start animation
Set alterable value A to 0
Long Plat: Set alterable value A to 1
Long Plat 2: Set alterable value A to 1

Event 46: Pressing the Down Arrow while Normal Guy is hanging causes him to jump and let go of the platform he's hanging from.

47. Collision between Normal Guy and Star
Door Open: Start animation

Event 47-50: Hitting the Star object is how Normal Guy can open the door called Door Open. This door leads back to Crossroads.

48. Door Open animation Stopped is over
Door Open: Set animation sequence to Door Open
Set alterable value A to 1

49. Collision between Normal Guy and Door Open
Normal Guy: Stop

50. Collision between Normal Guy and Door Open
+ Alterable value A of Door Open = 1
GSC: Jump to frame number 7
Player 2: Set Number of Lives to lives("Player 2") / 10 * 10 + 4

51. X position of Normal Guy < 40
+ Y position of Normal Guy = Y("Long Plat 2")
Normal Guy: Change animation sequence to Jumping
Start animation
Set alterable value A to 0

Events 51-52: These events are like Events 44-45, but for Long Plat 2.

52. X position of Normal Guy > 225
+ Y position of Normal Guy = Y("Long Plat 2")
Normal Guy: Change animation sequence to Jumping
Start animation
Set alterable value A to 0

53. Collision between Normal Guy and Throwing Star
Throwing Star: Destroy
Counter 2: Add 5 to counter

Events 53-56: These events control what happens when Normal Guy encounters the Throwing Stars. Basically, the Sword's alterable value B is set to 1 and when the Space bar is pressed, Normal Guy throws the Animating Throwing Stars (as bullets). In addition, Counter 2 tracks how many Throwing Stars Normal Guy has. Once he runs out of them, he goes back to regular weapons.

54. Counter 2 > 0
Sword: Set alterable value B to 1

55. Alterable value B of Sword = 1
+ Counter 2 > 0
+ Upon pressing "Space bar"
Normal Guy: Shoot Animating Throwing Star at speed 79
Counter 2: Subtract 1 from counter

56. Counter 2 = 0
Sword: Set alterable value B to 0

57. Collision between Normal Guy and Swampie
Sound: Play sample swamp

58. Collision between Normal Guy and Dragon
Sound: Play sample swamp

59. Collision between Normal Guy and Cobra
Sound: Play sample whipcrck

60. Collision between Normal Guy and Money
Sound: Play sample pingelec
Player 2: Add 100 to Score
Money: Destroy

61. Collision between Sword and Swampie
Sound: Play sample stab2
Create New Objects: Create Wallop at (0, 0) from Swampie
Swampie: Sub 75 to alterable value A

62. Collision between Sword and Dragon

Sound: Play sample ceramic2
Create New Objects: Create Wallop at (0, 0) from Dragon
Dragon: Sub 75 to alterable value A

63. Collision between Sword and Cobra

Sound: Play sample stab2
Create New Objects: Create Wallop at (0, 0) from Cobra
Cobra: Sub 15 to alterable value A

64. Collision between Animating Throwing Star and Swampie

Sound: Play sample chop1
Create New Objects: Create Wallop at (0, 0) from Swampie
Swampie: Sub 25 to alterable value A
Animating Throwing Star: Destroy

65. Collision between Animating Throwing Star and Dragon

Sound: Play sample chop1
Create New Objects: Create Wallop at (0, 0) from Dragon
Dragon: Sub 25 to alterable value A
Animating Throwing Star: Destroy

Using the Hanging animation

66. Collision between Animating Throwing Star and Cobra

Sound: Play sample chop1
Create New Objects: Create Wallop at (0, 0) from Cobra
Cobra: Destroy
Animating Throwing Star: Destroy

67. Wallop animation Stopped is over

Wallop: Destroy

68. Alterable value A of Swampie <= 0

Player 4: Add 300 to Score
Swampie: Destroy

69. Alterable value A of Cobra <= 0

Player 4: Add 200 to Score
Cobra: Destroy

70. Every 01'00"

+ 1 = random(7)
+ Pick one of Cobra
Cobra: Shoot Blizzard toward random direction (out of 3) at speed 58

Note: The directions used are directions numbered 15-17.

Events 70-72: These events control the random Cobra spitting and change the direction of the Cobras to face toward Normal Guy. Event 72 shows what happens if Normal Guy gets hit.

71. Every 00'01"
+ Pick one of Cobra
    Cobra: Change animation direction to X("Normal Guy")

72. Collision between Normal Guy and Blizzard
    Player 1: Subtract 20 from Score
    Blizzara: Destroy

73. Every 08'00"
    Dragon: Shoot Explosion 5 towara random direction (out of 3) at speed 58

Note: The directions used in this event are directions numbered 15-17.

Events 73 & 74: Every eight seconds, the Dragon shoots out an Explosion 5. If it hits Normal Guy, he gets hurt by 20 points.

74. Collision between Normal Guy and Explosion 5
    Sound: Play sample frying (uninterruptable)
    Player 1: Subtract 20 from Score
    Explosion 5: Destroy

75. Alterable value A of Dragon <= 0
+ lives ("Player 3") mod 10 < 2
    Dragon: Destroy
    Text 1: Display paragraph 1 at (417, 338)

Events 75 & 76: If Normal Guy destroys the Dragon, but doesn't have the Key from Frame 9, then the Dragon says, "You still need the key..." However, in Event 76, if the player has gotten the key from Frame 9, there's a reward of gold and points, plus the Exit Door is set so it will open and lead to Frame 10 (Event 78).

76. Alterable value A of Dragon <= 0
+ lives ("Player 3") mod 10 = 2
    Player 2: Add 300 to Score
    Player 4: Add 400 to Score
    Dragon: Destroy
    Exit Door: Set alterable value A to 1

77. Collision between Normal Guy and Exit Door
+ Alterable value A of Exit Door = 0
    Normal Guy: Stop

78. Collision between Normal Guy and Exit Door
+ Alterable value A of Exit Door = 1
    GSC: Jump to frame number 10
    Player 2: Set Number of Lives to lives("Player 2") / 10 * 10 + 4

79. Collision between Normal Guy and Ball with Arrows
    GSC: Jump to frame number 7
    Player 2: Set Number of Lives to lives("Player 2") / 10 * 10 + 2

Event 79: The player can go back to Crossroads by jumping into Ball with Arrows (in the lower left corner of the play area).

80: Collision between Normal Guy and A Fire
+ Every 00'10"

Sound: Play sample firespit (uninterruptable)
Player 1: Subtract 1 from Score

Event 80: If Normal Guy lands in the fire, every tenth of a second one hit point is removed.

81. Upon pressing "H"
+ Lives of Player 4 / 100 = 8

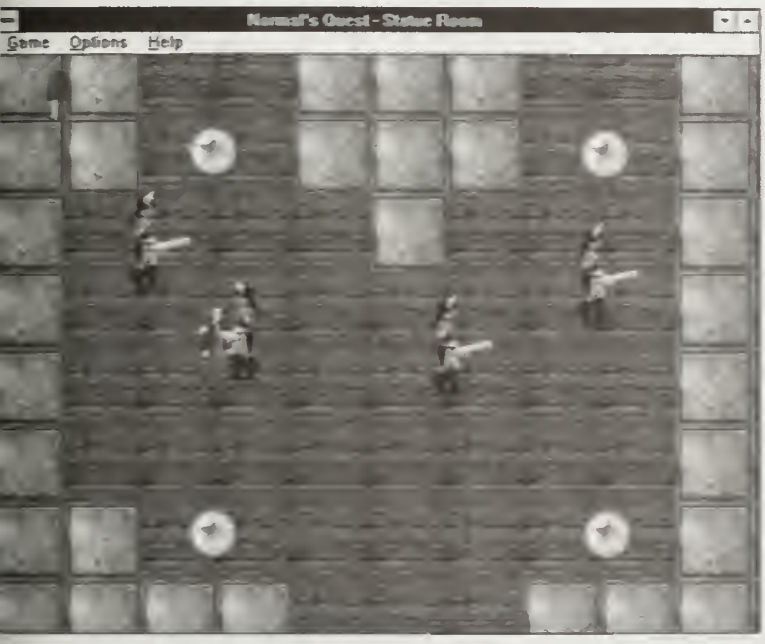
Sound: Play sample evilhaa (uninterruptible)
Player 1: Add 300 to Score

82. End of Level
Sound: Play sample cuckclok

83. Upon pressing "F1"
GSC: Jump to frame number 14
Player 1: Add 80 to Number of lives

Fourteen: Normal's Quest (Frame 9)

The Statue Room



This frame contains a bit of a clever puzzle. Simple in concept, it turned out to be somewhat complex in execution. The idea is that four statues appear in random positions every time the player enters the frame. The player's job is to carry the statues to the appropriate pedestals (represented by Circle Star). Each statue goes in a particular pedestal, but the only clue the player has is a colored tattoo on the arm of each statue. If the player puts the statues in the wrong positions, they all come to life, and the player must hit them with the sword to freeze them again. If the player is successful, a Chest of Gold and a Key appear. Once the player has this Key, the Exit Door behind the Dragon in Frame 8 becomes accessible and the player can continue the game.

As in Frames 3 and 5, the Space bar serves double duty. When the statues are frozen, the attack functions are disabled and pressing the Space bar is used to carry the statues. When the statues come to life, then the attack functions are reestablished. In this frame, we did that by modifying alterable value B of Normal Guy.

Active Objects

In addition to the Standard Objects, there are several new Frame Specific Objects.

Frame Specific Objects

A Plate
Description: Metal Plate from Textures library

A Plate 2
Description: Another Metal Plate

A Plate 3
Description: Metal Plate

A Plate 4
Description: Another Metal Plate

A Plate 5
Description: Yet another Metal Plate

Barbarian (+ Barbarians 2-4)
Description: Same as Barbarians in Frame 6
Movement: Ball

Key
Description: From Collectable Items library

Circle Star (+ Circle Star 2-4)
Description: Ball with Arrows from Pinball library renamed

Dot 4
Description: Brown dot (blends into Wood tile)

Chest of Gold
Description: From Collectable Items library

Backdrop Objects

Wood 1
Description: Wood tile from Textures library
Background object, no obstacle

Metal Plate 1
Description: From Textures Library
Background object, obstacle

Game Objects

Counters 1-3
Display as: Hidden
Initial: 0
Minimum: 0
Maximum: 999999999

Event List

1. Start of Level
+ Number of lives of Player 4 < 100

Event 1: This event is used during testing the individual frame. Basic global variable information is set up here in addition to the conditions set in Event 2.

2. Start of Level
+ lives of Player 4 mod 10 > 0

Normal Guy: Set direction to "up"
Set alterable value A to 1
Set alterable value B to 0
Change animation sequence to Walking
Shield: Set position at (50, 30)
Key: Set alterable value A to 0
Make invisible
Gangster: Set position at (948, 371)
Fireball 2: Destroy
Pint of Suds: Set position at (948, 371)
Pint of Suds 2: Set position at (948, 371)
Counters 1-3: Set counter to 0

Events 3 & 4 control the the placement of Shield objects depending on the value of Player 1 Lives. See Frame 1, Events 3 & 4.

5. Alterable value A of Normal Guy = 1
+ Every 00'20"
    Counter 3: Add 1 to counter

Events 5-10: With Normal Guy's alterable value A set to 1 at the start of the level, Counter 3 is incremented every 2/10th of a second. Each time it is incremented, Events 6-9 each check a different Barbarian to see if it has been placed in the play area yet. If it has not, it is placed at a random Dot 4 and that Dot 4 is destroyed. This way, the Barbarian objects are placed randomly in one of four different positions. By destroying Dot 4 after placing the Barbarian, the game assures that two Barbarians won't be placed in the same location. Notice that Event 9 doesn't have the "Pick one of Dot 4" conditions, since there is only one Dot 4 left when that event is run. In Event 10, when Counter 3 reaches 5, alterable value A of Normal Guy is set to 0 and all the Barbarians are made visible.

6. Counter 3 = 1
+ Number of Barbarian in zone (50, -28) to (576, 452) = 0
+ Pick one of Dot 4
    Barbarian: Make invisible
        Stop
        Change animation sequence to Stopped
        Set position at (0. 0) from Dot 4
        Set alterable value A to 0
        Set alterable value B to 0
        Set alterable value C to 0
    Dot 4: Destroy

7. Counter 3 = 2
+ Number of Barbarian 2 in zone (50, -28) to (576, 452) = 0
+ Pick one of Dot 4
    Barbarian 2: Make invisible
        Stop
        Change animation sequence to Stopped
        Set position at (0. 0) from Dot 4
        Set alterable value A to 0
        Set alterable value B to 0
        Set alterable value C to 0
    Dot 4: Destroy

8. Counter 3 = 3
+ Number of Barbarian 3 in zone (50, -28) to (576, 452) = 0
+ Pick one of Dot 4
    Barbarian 3: Make invisible
        Stop
        Change animation sequence to Stopped
        Set position at (0. 0) from Dot 4
        Set alterable value A to 0
        Set alterable value B to 0
        Set alterable value C to 0
    Dot 4: Destroy

9. Counter 3 = 4
+ Number of Barbarian 4 in zone (50, -28) to (576, 452) = 0
    Barbarian 4: Make invisible
        Stop
        Change animation sequence to Stopped
        Set position at (0, 0) from Dot 4
        Set alterable value A to 0
        Set alterable value B to 0
        Set alterable value C to 0
    Dot 4: Destroy

10. Counter 3 = 5
    Normal Guy: Set alterable value A to 0
    Barbarians (1-4): Reappear
    Counter 3: Set counter to 0

11. Normal Guy collides with the background
    Normal Guy: Stop

12. Normal Guy leaves the play area on the top, left or right
    Normal Guy: Stop

13. Normal Guy leaves the play area on the bottom
    GSC: Jump to frame number 7
    Player 2: Set Number of Lives to lives("Player 2") / 10 * 10 + 1

14. Repeat while "Space bar" is pressed
+ Alterable value B of Normal Guy = 1
+ Score of Player 3 mod 10 = 1
    Normal Guy: Change animation sequence to Attack
        Change speed of animation to 10
    Sword: Set position at (0, 0) from Normal Guy
        Set direction to Dir "Normal Guy"

Events 14-16: Alterable value B of Normal Guy is used to determine whether he should attack or carry statues. Otherwise, these events are identical to the attack events of other frames.

15. Repeat while "Space bar" is pressed
+ Alterable value B of Normal Guy = 1
+ Score of Player 3 mod 10 = 2
+ Number of Fireball 2 in zone (0,0) to (640, 480) < 5
    Create New Objects: Create Fireball 2 at (26, -5) from Normal Guy
    Normal Guy: Change animation sequence to Attack
        Change speed of animation to 10
    Fireball 2: Start
        Start animation
        Set speed to 12
        Set direction to Dir "Normal Guy"
    Laser 4: Set position at (0, 0) from Normal Guy
        Set direction to Dir "Normal Guy"

16. Repeat while "Space bar" is pressed
+ Alterable value B of Normal Guy = 1
+ Score of Player 3 = 33

Normal Guy: Change animation sequence to Attack
Change speed of animation to 10
Magic Sword: Set position at (0, 0) from Normal Guy

Events 17-38 are identical to Events 17-38 in Frame 1.

39. Collision between Normal Guy and Barbarian

+ Alterable value A of Barbarian = 4

Sound: Play sample rifle1
Player 1: Subtract 20 from Score

Events 39-42: These events happen when the player has unsuccessfully tried to place the Barbarians in their proper positions (see Event 85). When this happens, their alterable values A are set to 4 and they come back to life. Events 40-42 are the same as Event 39, but for Barbarians 2-4.

43. Collision between Sword and Barbarian

+ Alterable value A of Barbarian = 4

Sound: Play sample axeclang
Barbarian: Stop
Set alterable value B to 3

Events 43-46: These events happen when the Barbarians have come back to life and are hit by the Sword. The effect is to make them into statues again. Events 44-46 are the same as event 43, but for Barbarians 2-4.

47. Normal Guy is overlapping Barbarian

+ Repeat while "Right Arrow" is pressed
+ Repeat while "Space bar" is pressed
+ Alterable value A of Barbarian = 0

Normal Guy: Set speed to 20
Barbarian: Set position (27, 27) from Normal Guy
Barbarians (2-4): Set alterable value A to 1

Events 47-63: These events handle the "carrying" of the Barbarian statues. The important condition is the alterable value A of each Barbarian. When alterable value A of a Barbarian is set to 0, then that Barbarian can be carried (set to a position relative to Normal Guy when they overlap and Space bar is pressed). Alterable value A of the other Barbarians is set to 1 so they can't be picked up at the same time. Event 63 switches all the Barbarian alterable values A back to 0 every two seconds so the player can pick up another one. There is a separate condition for each direction arrow because the position of the statue must be different depending on which direction Normal Guy is facing. Alterable value C is used to determine if the Barbarian has been placed on a pedestal or not.

48. Normal Guy is overlapping Barbarian

+ Repeat while "Left Arrow" is pressed
+ Repeat while "Space bar" is pressed
+ Alterable value A of Barbarian = 0
+ Alterable value C of Barbarian = 0

Normal Guy: Set speed to 20
Barbarian: Set position (-28, -27) from Normal Guy
Barbarians (2-4): Set alterable value A to 1

49. Normal Guy is overlapping Barbarian
+ Repeat while "Up Arrow" is pressed
+ Repeat while "Space bar" is pressed
+ Alterable value A of Barbarian = 0
+ Alterable value C of Barbarian = 0

Normal Guy: Set speed to 20
Barbarian: Set position (2, -38) from Normal Guy
Barbarians (2-4): Set alterable value A to 1

50. Normal Guy is overlapping Barbarian
+ Repeat while "Down Arrow" is pressed
+ Repeat while "Space bar" is pressed
+ Alterable value A of Barbarian = 0
+ Alterable value C of Barbarian = 0

Normal Guy: Set speed to 20
Barbarian: Set position (0, 87) from Normal Guy
Barbarians (2-4): Set alterable value A to 1

Events 51-62: These events are exactly the same as Events 47-50, but for each of the remaining Barbarians. Create an event for each direction arrow for each Barbarian.

63. Every 02' 00"
+ Alterable value A of Barbarian < 4

Barbarians (1-4): Set alterable value A to 0

64. Collision between Normal Guy and A Plate
Normal Guy: Bounce

65. Collision between Normal Guy and A Plate 2
Normal Guy: Bounce

66. Collision between Normal Guy and A Plate 3
+ A Plate 3 is visible

Normal Guy: Bounce

67. Collision between Normal Guy and A Plate 4
+ A Plate 4 is visible

Normal Guy: Bounce

68. Collision between Normal Guy and A Plate 5
+ A Plate 5 is visible

Normal Guy: Bounce

69. Collision between Barbarian and Circle Star
+ Alterable value A of Circle Star = 0

Sound: Play sample emptygun
Barbarian: Set position at (0, 0) from Circle Star
Set alterable value C to 1
Circle Star: Set alterable value A to 1
A Plate 5: Make invisible
Counter 2: Add 1 to counter

Events 69-84: Events 69-72 occur when the player places the Barbarians in the correct locations. The rest of the events (73-84) occur when the player places Barbarians in incorrect positions. Notice that the only difference is that the Barbarian's alterable value C is set to 2

instead of 1. Even the same metal plates are made invisible, so the player has no way of knowing the difference between a correct move and an incorrect one.

Variables are used to make sure that the player can't pick up a Barbarian once it has been placed. The alterable values A of the Circle Star objects are changed, and so are the alterable values C of the Barbarians. The former variable makes sure that only one Barbarian can be placed per pedestal. The latter variable makes sure that, once a Barbarian is placed, Normal Guy can't pick it up again. Also, the sum of the Barbarians' C values is used to determine if all four were correctly placed or not (in Events 85 & 86).

70. Collision between Barbarian 2 and Circle Star 2

+ Alterable value A of Circle Star 2 = 0

Sound: Play sample emptygun
Barbarian 2: Set position at (0, 0) from Circle Star 2
Set alterable value C to 1
A Plate 2: Make invisible
Circle Star 2: Set alterable value A to 1
Counter 2: Add 1 to counter

71. Collision between Barbarian 3 and Circle Star 3

+ Alterable value A of Circle Star 3 = 0

Sound: Play sample emptygun
Barbarian 3: Set position at (0, 0) from Circle Star 3
Set alterable value C to 1
A Plate 3: Make invisible
Circle Star 3: Set alterable value A to 1
Counter 2: Add 1 to counter

72. Collision between Barbarian 4 and Circle Star 4

+ Alterable value A of Circle Star 4 = 0

Sound: Play sample emptygun
Barbarian 4: Set position at (0, 0) from Circle Star 4
Set alterable value C to 1
A Plate 4: Make invisible
Circle Star 4: Set alterable value A to 1
Counter 2: Add 1 to counter

73. Collision between Barbarian 2 and Circle Star

+ Alterable value A of Circle Star = 0

Sound: Play sample emptygun
Barbarian 2: Set position at (0, 0) from Circle Star
Set alterable value C to 2
Circle Star: Set alterable value A to 1
A Plate 5: Make invisible
Counter 2: Add 1 to counter

Events 74-84: These events are exactly the same as Event 73, with each remaining combination of Barbarian and Circle Star being represented (Barbarian 3 & Circle Star, Barbarian 4 & Circle Star, Barbarian & Circle Star 2, and so forth). The only difference is that Plate 5 is always made invisible when a Barbarian is placed on Circle Star. Plate 2 is associated with Circle Star 2, Plate 3 with Circle Star 3, and Plate 4 with Circle Star 4.

85. Counter 2 = 4

+Value C("Barbarian") + Value C("Barbarian 2") + Value C("Barbarian 3") + Value C("Barbarian 4") > 4
+ Every 00'50"

Barbarians (1-4): Start
Start animation
Set alterable value A to 4
Set speed to 20
Look at (85, 226) from A Plate 5
Set alterable value B to 1
A Plates (2-5): Reappear
Gangster: Set alterable value A to 0
Counter 2: Set counter to 0

Event 85: Once all four Barbarians have been placed in pedestals, Counter 2 = 4. If any of the Barbarians has been placed in the wrong position, then the sum of their alterable values C will be greater than 4 since Value C is set to 2 if the Barbarian is put on the wrong pedestal. In this case, all the statues are reanimated and the player must freeze them again.

86. Counter 2 = 4

+Value C("Barbarian") + Value C("Barbarian 2") + Value C("Barbarian 3") + Value C("Barbarian 4") = 4

Chest of Gold: Set position at (346, 157)
Key: Reappear
A Plate 2: Destroy
A Plate 4: Destroy
Counter 2: Set counter to 0

Event 86: If all four Barbarians were placed in the correct positions, then the sum of the Barbarians' alterable values C will equal 4. If so, the Chest of Gold and the Key appear and some metal pieces are destroyed.

87. Alterable value B of Barbarian = 3

+ Alterable value B of Barbarian 2 = 3
+ Alterable value B of Barbarian 3 = 3
+ Alterable value B of Barbarian 4 = 3
+ Alterable value B of Normal Guy = 1

Normal Guy: Set alterable value B to 0
Barbarians (1-4): Set alterable value A to 0
Set alterable value B to 0
Set alterable value C to 0
Circle Stars (1-4): Set alterable value A to 0

Event 87: If the player fails to place all the Barbarians correctly the first time and uses the Sword to freeze them again, then each Barbarian will have alterable value B equal to 3. Now all the variables are reset so that Normal Guy can carry the statues and place them in the pedestals again.

88. Collision between Normal Guy and Chest of Gold

Sound: Play sample bellhi
Player 2: Add 500 to Score
Chest of Gold: Destroy

89. Collision between Normal Guy and Key

Sound: Play sample clapfew
Player 3: Set Number of Lives to lives ("Player 3") / 10 * 10 + 2
Key: Destroy

Event 89: Getting the second Key is important. Now Normal Guy can get through Frame 8 by first destroying the Dragon, then going through the Exit Door which leads to Frame 10. Setting Player 3 Lives is what tells the game that the key was obtained.

90. Collision between Barbarian and A Plate

Barbarian: Bounce

Events 90-109: These events cause each Barbarian to bounce when it collides with each of the metal plates (A Plate, A Plate 2, A Plate 3, etc.) Create an event for each Barbarian and each plate.

110. Barbarian collides with the background

Barbarian: Bounce

Events 110-113: Create an event for each Barbarian colliding with the background.

114. Barbarian leaves the play area

Barbarian: Bounce

Events 114-117: Create an event for each Barbarian leaving the play area.

118. Upon pressing "H"

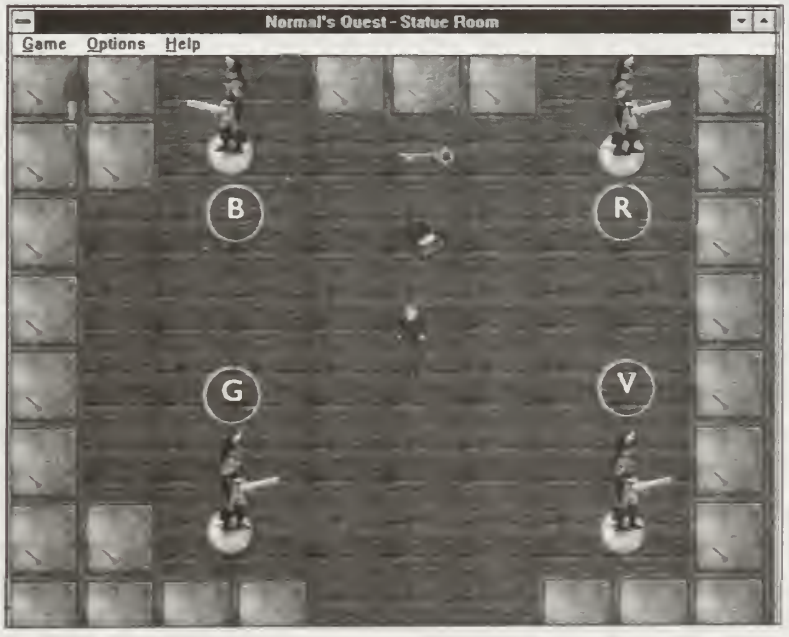
+ lives of Player 4 / 100 = 8
Player 1: Set Score to lives Player 1 * 100

119. End of Level

Sound: Play sample cuckclok

120. Upon pressing "F1"

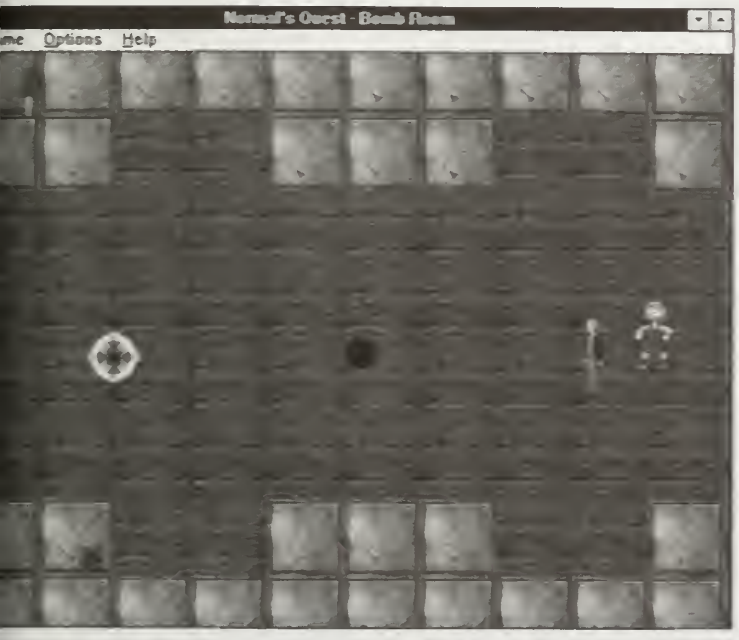
GSC: Jump to frame number 14
Player 1: Add 90 to Number of Lives



Proper ending positions of the Barbarians:
R= Red
B = Blue
G = Green
V = Violet

Fifteen: Normal's Quest (Frame 10)

The Bomb Room



This is a very simple room — more or less the goal of all the rooms since Frame 4. In this room, the Space Vixen gives you a bomb, but not until after she plays a little joke on you by having the bomb blow you up. The second time you get the bomb, however, it's safe. That's all there is to do here. Then you teleport back to Frame 4, where you can now blow up the door leading to the left (or west).

One thing this frame does better than the others is that it demonstrates what happens when the player loses a life. It starts a counter when Player 1's Score falls to or below 0, and two seconds later it restarts the frame. This lets any animations and sounds play before the level restarts. It would be a better idea to add this sort of routine to each level for when the player loses a life or when the player moves on to another frame.

Active Objects

In addition to the Standard Objects, there are several new Frame Specific Objects.

Frame Specific Objects

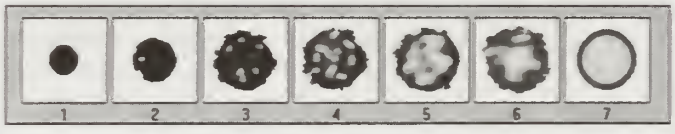
A Plate
Description: Meta Plate from Textures library

A Plate 2
Description: Another Metal Plate

Space Vixen
Description: Animated character from Space Opera library

Ball with Arrows
Description: Ball with Arrows from Pinball library renamed

Bomb
Description: Bomb object (actually, Explosion 12 from Explosions library)



Bomb animations. Above is Bomb. Lower right is Simple.

Backdrop Objects

Wood 1
Description: Wood tile from Textures library
Background object, no obstacle

Metal Plate 1
Description: From Textures library
Background object, obstacle

Game Objects

Counters 1-2
Display as: Hidden
Initial: 0
Minimum: 0
Maximum: 999999999

Text 1
Paragraph 1: Take this bomb and blow out the wall...
Paragraph 2: Nya, nya. Just kidding. Go ahead. It's safe, now.

Event List

1. Start of Level
+ Number of lives of Player 4 < 100

Event 1: This event is used during testing the individual frame. Basic global variable information is set up here in addition to the conditions set in Event 2. Note that the player is healed to full hit points each time the frame begins.

2. Start of Level
+ lives of Player 4 mod 10 > 0

Player 1: Set Score to lives("Player 1") * 100
Normal Guy: Set direction to "right"
Change animation sequence to Stopped
Shield: Set position at (50, 30)
Space Vixen: Set alterable value A to 100
Set alterable value C to 0
Gangster: Set position at (948, 371)
Fireball 2: Destroy
Pint of Suds: Set position at (948, 371)
Pint of Suds 2: Set position at (948, 371)
Counters 1-3: Set counter to 0

Events 3 & 4 control the the placement of Shield objects depending on the value of Player 1 Lives. See Frame 1, Events 3 & 4.

5. Normal Guy collides with the background
Normal Guy: Stop

6. Normal Guy leaves the play area
Normal Guy: Stop

Events 7-23 of this frame are the same as Events 14-30 of Frame 1. Events 24-29 of this frame are the same as Events 33-38 of Frame 1.

30. Score of Player 1 <= 0
+ Every 01'00"

Counter 1: Add 1 to counter

Event 30: When the player runs out of hit points, the counter starts incrementing. When it reaches 2, the level is restarted. This gives time for any final animations, etc.

31. Counter 1 = 2

GSC: Restart current level

32. Collision between Normal Guy and Space Vixen
+ Number of lives("Player 3") mod 10 < 3

Normal Guy: Change animation sequence to Stopped
Set position at (-67, 11) from Space Vixen
Space Vixen: Set alterable value C to 1
Counter 2: Set counter to 0
Text 1: Display paragraph 1 at (367, 144)

Events 32 & 33: The first time (Event 32) that Normal Guy goes up to the Space Vixen, paragraph 1 of Text 1 is displayed, telling Normal Guy to go blow out the wall. This refers to the wall in Frame 4. But when Normal Guy goes to get the Bomb in Event 39, it blows him sky high (but sets Player 3 Lives mod 10 to 3, which will be recognized the next time around). The level restarts and this time the Space Vixen admits to her little joke. Fortunately, the player actually loses no points and all hit points are restored. The second time around (Event 33), paragraph 2 is displayed. This time when Normal Guy gets the Bomb, he's OK, and Player 3 Lives mod 10 is set to 4, which will be read when the player returns to Frame 4.

33. Collision between Normal Guy and Space Vixen
+ Number of lives("Player 3") mod 10 >= 3

Normal Guy: Change animation sequence to Stopped
Set position at (-67, 11) from Space Vixen
Space Vixen: Set alterable value C to 1
Counter 2: Set counter to 0
Text 1: Display paragraph 2 at (388, 159)

34. Counter 2 = 1

Create New Objects: Create Ball with Arrows at (123, 255)
Bomb: Change animation sequence to Simple
Stop animation
Set position to (329, 249)

Events 34-35: These events occur after the collision between Normal Guy and Space Vixen. The Ball with Arrows and the Bomb are created in Event 34. The Space Vixen's alterable value C is set to zero, and the text on the screen is erased in Event 35.

35. Counter 2 = 1

Space Vixen: Set alterable value C to 0
Text 1: Erase

36. Collision between Sword and Space Vixen

Sound: Play sample femlaugh
Space Vixen: Subtract 35 to alterable value A

Events 36-37: As you can see from these events, it's not such a good idea to attack the

Space Vixen. Killing her causes the player to lose a life.

37. Alterable value A of Space Vixen <= 0

Sound: Play sample cuckclok
Player 1: Set score to 0
Player 4: Subtract 1000 from Score
Space Vixen: Destroy

38. Every 01'00"

+ Alterable value C of Space Vixen = 1

Counter 2: Add 1 to counter

Event 38: This counter event actually controls what happens in events 34 & 35.

39. Collision between Normal Guy and Bomb

+ Number of lives("Player 3") mod 10 < 3

Sound: Play sample phaser3 (uninterruptable)
Player 1: Set Score to 0
Player 3: Set Number of Lives to lives("Player 3") / 10 * 10 + 3
Normal Guy: Make invisible
Space Vixen: Set alterable value C to 0
Bomb: Change animation sequence to Bomb
Start animation

40. Collision between Normal Guy and Bomb

+ Number of lives("Player 3") mod 10 >= 3

Sound: Play sample phaser3 (uninterruptable)
Player 1: Set Score to 0
Player 2: Add 200 to Score
Player 3: Set Number of Lives to lives("Player 3") / 10 * 10 + 4
Player 4: Add 250 to Score
Bomb: Change animation sequence to Bomb
Start animation
Destroy

41. Bomb animation Bomb is over

Bomb: Destroy

42. Collision between Normal Guy and Ball with Arrows

+ Number of lives of Player 3 mod 10 >= 4

GSC: Jump to frame number 4
Player 2: Set Number of Lives to lives("Player 2") / 10 * 10 + 2

Event 42: Once Normal Guy has gotten the Bomb (the second time), he can use Ball with Arrows to teleport back to Frame 4.

43. Collision between Normal Guy and A Plate

Normal Guy: Bounce

44. Collision between Normal Guy and A Plate 2

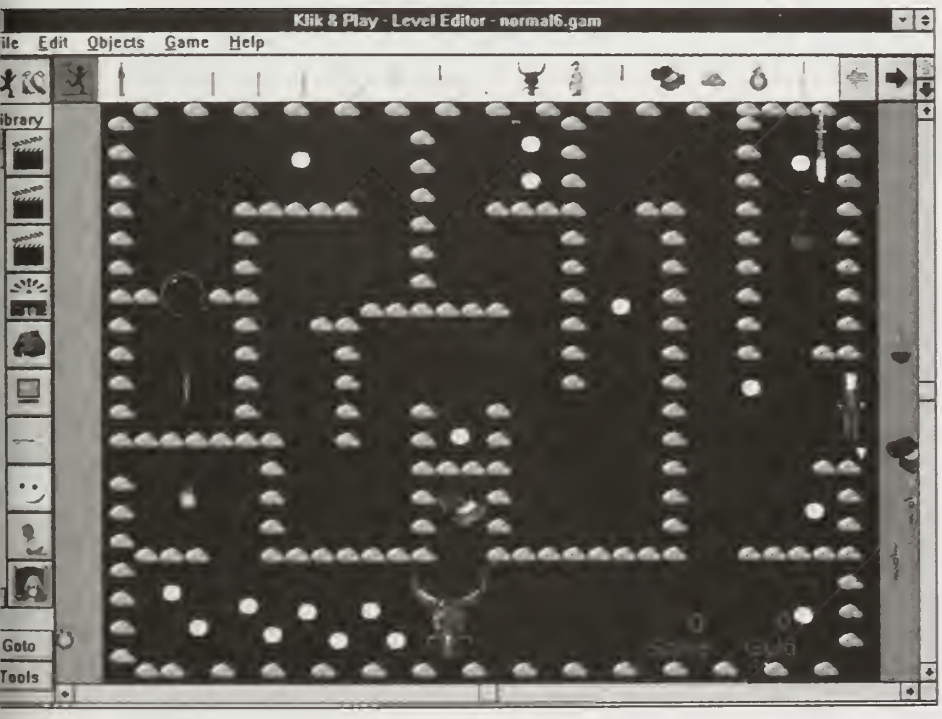
Normal Guy: Bounce

45. Upon pressing "F1"

GSC: Jump to frame number 14
Player 1: Add 100 to Number of Lives

Sixteen: Normal's Quest (Frame 11)

The Dark Room



This is a fun room. It was formed by setting a lot of Magic Rocks in positions to make a maze. A the beginning of the level, almost everything is set to be invisible. When Normal Guy bumps into something, it becomes visible. The Magic Rocks start flashing, the Money and Potion objects simply become visible. Walking to the Fireball in the lower left lights up the whole room. The object is to get the Flame Thrower (the Laser 4 object), which is at the end of the maze.

Note that the Sword is ineffective against the alien who patrols the bottom. Only the Flame Thrower can destroy him.

Active Objects

In addition to the Standard Objects, there are several new Frame Specific Objects.

Frame Specific Objects

Bubble

Description: Power Up 11 from Power-ups library

Money

Description: From Collectable Items library

Alien 4

Description: From Aliens library
Movement: Taped

Note: Alien 4 moves back and forth across the bottom of the screen, pausing in a few places.

Chest of Gold

Description: From Collectable Items library

Magic Rock

Description: Rock from Heaven, Earth, Fire and Water library

Potion
Description: From Collectable Items library

Backdrop Objects

Quick Backdrop 1
Description: Solid Black
Quick backdrop object (651 x 487), no obstacle

Game Objects

Counters 1-2

Text 1
Paragraph 1: Press "W" for Sword
"A" for Flame Thrower

Event List

1. Start of Level
+ Number of lives of Player 4 < 100

Event 1: This event is used during testing the individual frame. Basic global variable information is set up here in addition to the conditions set in Event 2.

2. Start of Level
+ lives of Player 4 mod 10 > 0

Normal Guy: Set direction to "left"
Change animation sequence to Stopped
Set alterable value A to 1
Laser 4: Set position at (314, 389)
Shield: Set position at (50, 30)
Bubble: Make invisible
Money: Make invisible
Alien 4: Set alterable value A to 250
Chest of Gold: Make invisible
Magic Rock: Make invisible
Fireball 2: Stop
Potion: Make invisible
Gangster: Set position at (948, 371)
Pint of Suds: Set position at (948, 371)
Pint of Suds 2: Set position at (948, 371)

Events 3 & 4 control the the placement of Shield objects depending on the value of Player 1 Lives. See Frame 1, Events 3 & 4.

5. Normal Guy leaves the play area on the bottom, top or left
Normal Guy: Stop

6. Normal Guy leaves the play area right

GSC: Jump to frame number 4
Player 2: Set Score to Score ("Player 2") / 10 * 10 + 4

7. Normal Guy collides with the background

Normal Guy: Stop

Events 8-32 of this frame are the same as Events 14-38 of Frame 1.

33. Normal Guy animation Attack is playing

+ score ("Player 3") mod 10 = 2

Laser 4: Set position at (0, 0) from Normal Guy
Set direction to Dir "Normal Guy"

34. Collision between Normal Guy and Magic Rock

Sound: Play sample ball6
Magic Rock: Flash during 00'20"

Event 34: When Normal Guy collides with a Magic Rock, the rock flashes every 2/10ths of a second.

35. Collision between Sword and Magic Rock

Sound: Play sample sword2

36. Every 20'00"

+ Alterable value A of Magic Rock = 0

Magic Rock: Make invisible

Event 36: Every 20 seconds, the game reads to see if Magic Rock alterable value A equals 0. If so, then all Magic Rocks are made invisible again.

37. Collision between Normal Guy and Potion

+ Potion is visible

Sound: Play sample fluxcold (uninterruptable)
Player 1: Set Score to lives("Player 1") * 100
Potion: Destroy

Events 37-40: These events are pretty ordinary collision events, but they read the visibility state of an object. If an object is invisible when Normal Guy collides with it, then that object is made visible.

38. Collision between Normal Guy and Potion

+ Potion is invisible

Potion: Reappear

39. Collision between Normal Guy and Money

+ Money is visible

Sound: Play sample blip1
Player 2: Add 25 to Score
Money: Destroy

40. Collision between Normal Guy and Money

+ Money is invisible

Money: Reappear

41. Collision between Normal Guy and Alien 4

Sound: Play sample exert1 (uninterruptable)
Player 1: Subtract 30 from Score

Events 41-46: Examining these events shows that the Alien 4 object is not damaged by any weapon other than the Flame Thrower. When the alterable value A of Alien 4 is at or below zero, then Alien 4 is destroyed. Event 46 is ineresting. It looks to see if there are no more Alien 4s and also if Normal Guy is not in a particular area, then a Chest of Gold is created. If Normal Guy is in that area, the program waits until Normal Guy is gone, then creates the Chest of Gold. This condition is used to make sure the object isn't created on top of Normal Guy.

42. Collision between Sword and Alien 4
Sound: Play sample clang2

43. Collision between Glooper and Alien 4
Sound: Play sample belch2

44. Collision between Fireball 2 and Alien 4
Sound: Play sample poot1
Alien 4: Sub 25 to alterable value A

45. Alterable value A of Alien 4 <= 0
Player 4: Add 400 to Score
Alien 4: Destroy

46. No more Alien 4 in zone (-11, 358) to 667, 501)
+ Number of Normal Guy in zone (248, 293) to (351, 393) = 0
+ Alterable value A of Chest of Gold = 0
Chest of Gold: Reappear

47. Collision between Normal Guy and Chest of Gold
Sound: Play sample bellhi
Player 2: Add 500 to Score
Chest of Gold: Set position at (678, 296)
Set alterable value A to 1

48. Collision between Normal Guy and Fireball 2
+ Alterable value A of Normal Guy = 1
Normal Guy: Set alterable value A to 0
Money: Reappear
Fireball 2: Destroy
Potion: Reappear

49. Collision between Normal Guy and Bubble
Sound: Play sample boinglo (uninterruptable)
Normal Guy: Bounce
Bubble: Flash during 00'20"

50. Collision between Sword and Bubble
Sound: Play sample pop2
Bubble: Destroy

51. Collision between Normal Guy and Laser Icon

+ Score of Player 3 < 20
    Sound: Play sample clapwoop
    Player 3: Set Score to 21
    Laser Icon: Destroy
    Text 1: Display paragraph 1 at (203, 406)

Event 51: Once Normal Guy gets to the Laser Icon, then Player 3 Score is set to 21. Now all the events that control the use of the Flame Thrower will work. (Look at Event 37 where the Flame Thrower is made the current weapon. It reads to see if Player 3 Score is greater than 20. This is the event that sets that value.)

52. Upon pressing "H"

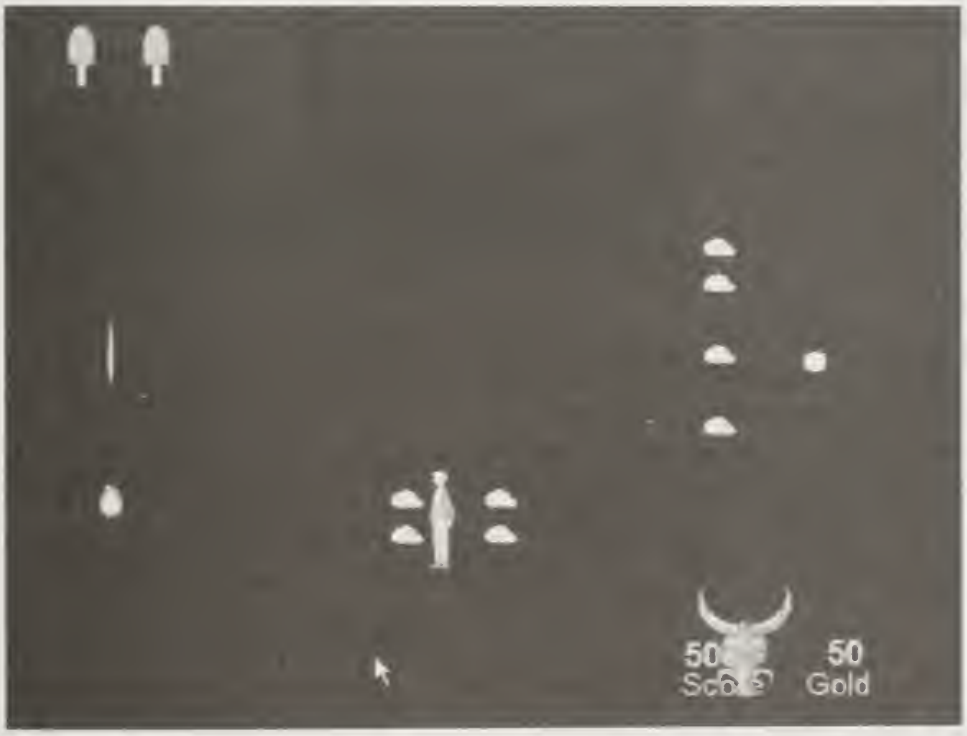
+ Lives of Player 4 / 100 = 8
    Sound: Play sample evilhaa (uninterruptible)
    Player 1: Add 300 to Score

53. End of Level

    Sound: Play sample cuckclck

54. Upon pressing "F1"

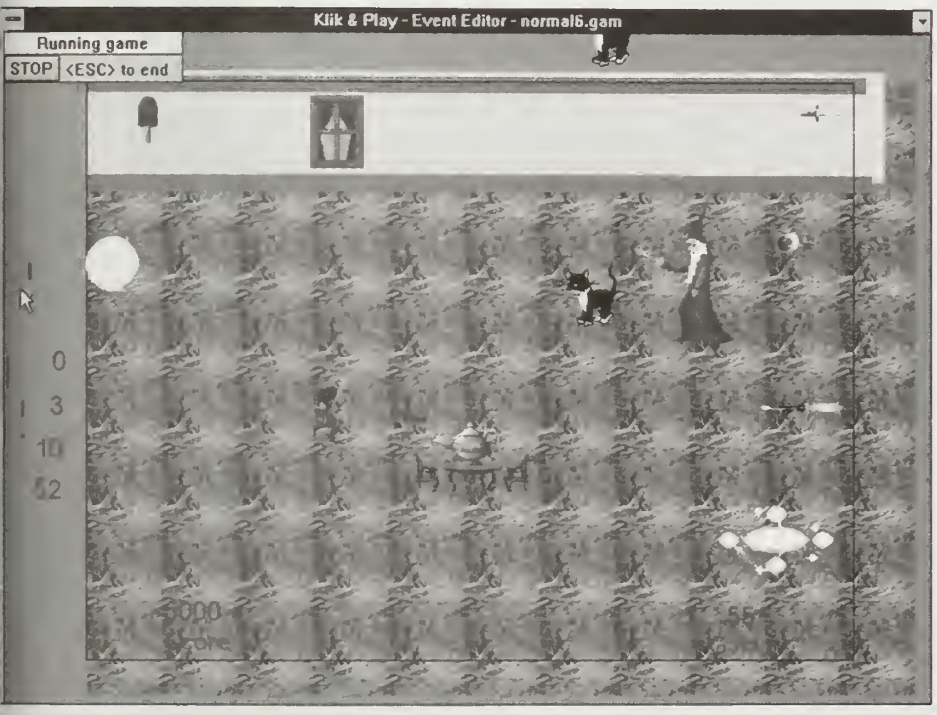
    GSC: Jump to frame number 14
    Player 1: Add 110 to Number of Lives



Frame 11 in operation

Seventeen: Normal's Quest (Frame 2)

The Wizard's House



This frame and Frame 12 are linked in a fairly complex series of events. There are some interesting little touches in this frame. The main story line involves ridding the Wizard of a pesky Troll who lives in the garden behind the house (Frame 12). The Wizard offers to sell you a special sword if you do so. Then it turns out that the Wizard has lost his spell book and wants you to get it. Well, if you killed the Troll, then you know there's a spider guarding the book. So you have to take out the spider, but at least the Wizard will sell you the Magic Sword to help you with that task.

The key element in this back and forth interaction is the ones digit of Player 4 Lives. This is incremented when the player has defeated the Troll. Player 4 Lives is incremented again when the player has touched the book once, again when the player gets the Magic Sword, and again when the player defeats the spider. Finally, this variable is incremented at the end of the game so the player can take the Magic Ring as a reward. The price of the Magic Sword is kept in Player 2 Lives (in the tens digit). The normal price is 5000 gold. If the player kills the Wizard's cat, the price goes up to 6000 gold. Expensive cat.

Also critical to this frame is the way Merlin 2's alterable value A is used in conjunction with Counter 1. By cleverly linking conditions, one counter and one alterable value serve to control the flow of the story line and the display of the appropriate text.

Active Objects

In addition to the Standard Objects (as described in Frame 1) the following Frame Specific Objects were used:

Frame Specific Objects

Pudsie the Cat
Description: Animated cat from the Toyland library

Merlin 2
Description: Merlin object from the Characters library

Note: I resized this object to make it a bit larger and slowed down its animation speed.

Snail
Description: Snail from the Animals & Birds library
Movement: Ball

Note: I turned this backdrop object into an Active Object and gave it four animation directions (up, down, left, right).

Disappear
Description: From Special Effects library

Table
Description: Table from Household Items library

Blizzard
Description: From Heaven, Earth, Fire and Water library

Genie
Description: Animated genie from Characters library

Chest of Gold
Description: From Collectable Items library

Little Bubbles
Description: From Heaven, Earth, Fire and Water library

UFO
Description: From the Space library

Supernova
Description: From the Space library

Oil Lamp
Description: Magic Lamp from Possessions library

Ring
Description: Ring from Collectable Items library

Backdrop Objects

Mud 2
Description: Mud tile used to make floor (from Textures library)
Backdrop object, no obstacle

Textback
Description: Light green rectangle
Quick backdrop object, no obstacle (505, 29)

Textback 2
Description: Brown rectangle
Quick backdrop object, no obstacle (661, 14)

Wood Window
Description: Wood Window from Building Blocks library
Backdrop object, no obstacle

Game Objects

Counters 1 & 2
Display as: Numbers
Initial: 0
Minimum: 0
Maximum: 999999999

Text 1
Paragraph 1: Go Away!!

Text 2
Paragraph 1: All right. All right. You're persistent.
What do you want?
Paragraph 2: You want what???
OK. Here's what I'm gonna do for you...
Paragraph 3: I've got this sword here, see?
I'll sell it to you for... um... 5000 gold. Deal?
Paragraph 4: Good! Now, all you need to do is
go get rid of that blasted monster
that keeps eating my fruit garden.
Paragraph 5: Go kill the monster behind the house.
Then I'll sell you the sword.
You do have enough gold, don't you?

Text 3
Paragraph 1: You killed my pussy cat.
For that, the sword will cost
6000 gold.

Text 4
Paragraph 1: Um... I'd like to sell you the sword.
But I've lost my spell book
Find it for me, and we can do business.

Text 5
Paragraph 1: The spider has my book? Oh dear...
Here, pay me the 5000 gold and you can
take the sword to kill the spider. Hurry!

Text 6
Paragraph 1: The spider has my book? Oh dear...
Here, pay me the 6000 gold and you can
take the sword to kill the spider. Hurry!

Text 7
Paragraph 1: Uh oh! Not enough gold?
Come back when you have enough.

Text 8
Paragraph 1: Uh uh. Don't touch!

Text 9

Paragraph 1: Ah... My book!
OK. So what do you want? A big reward
no doubt.
Paragraph 2: Here. Take my Magic Ring. It will let you heal yourself.
Just press the "H" key.

Text 10

Paragraph 1: What do you want from me?
Here's 1000 gold. Now leave me alone.

Text 11

Paragraph 1: Press "S" for Magic Sword
"A" for Flame Thrower
"W" for Sword

Event List

1. Start of Level

+ Number of lives of Player 4 < 100

Event 1: This event is used during testing the individual frame. Basic global variable information is set up here in addition to the conditions set in Events 6-9 below.

Events 2 & 3 control the the placement of Shield objects depending on the value of Player 1 Lives. See Frame 1, Events 3 & 4.

4. Start of Level

+ Lives of Player 2 mod 10 = 2

Normal Guy: Set position at (471, 382)
Set direction to "up"
Change animation sequence to Walking
Shield: Set position at (50, 30)

5. Start of Level

+ Lives of Player 2 mod 10 = 4

Normal Guy: Set position at (28, 270)
Set direction to "right"
Change animation sequence to Walking
Shield: Set position at (50, 30)

Events 4 & 5: These events set the position of Normal Guy depending on whether he's arrived from Frame 1 or from Frame 13. Also, because one of these two events will always be true, the first Shield icon is placed in position in these events.

6. Start of Level

+ Lives ("Player 4") mod 10 < 3

Merlin 2: Set alterable value A to 0
Set alterable value B to 200
Set alterable value C to 0
Pudsie the Cat: Set alterable value B to 100
Set alterable value A to 1
Snail: Destroy
Gangster: Set position at (948, 371)

Fireball 2: Destroy
Pint of Suds: Set position at (948, 371)
Sword Icon: Set position at (122, 250)
Pint of Suds 2: Set position at (948, 371)

Event 6: This event controls the opening of the level when the player first arrives and hasn't accomplished any of the goals in Frame 12.

7. Start of Level

+ Lives ("Player 4") mod 10 = 3

Merlin 2: Set alterable value A to 10
Set alterable value B to 200
Set alterable value C to 0
Pudsie the Cat: Set alterable value B to 100
Set alterable value A to 1
Snail: Destroy
Gangster: Set position at (948, 371)
Fireball 2: Destroy
Pint of Suds: Set position at (948, 371)
Sword Icon: Set position at (122, 250)
Pint of Suds 2: Set position at (948, 371)

Events 7-9: These events control what happens as the player accomplishes certain goals in Frame 12. Each of these conditions is exactly the same as Event 6 with the alterable value A of Merlin 2 being set to different values based on the value of Player 4 Lives.

8. Start of Level

+ Lives ("Player 4") mod 10 = 4

Merlin 2: Set alterable value A to 20
Set alterable value B to 200
Set alterable value C to 0
Pudsie the Cat: Set alterable value B to 100
Set alterable value A to 1
Snail: Destroy
Gangster: Set position at (948, 371)
Fireball 2: Destroy
Pint of Suds: Set position at (948, 371)
Sword Icon: Set position at (122, 250)
Pint of Suds 2: Set position at (948, 371)

9. Start of Level

+ Lives ("Player 4") mod 10 = 6

Merlin 2: Set alterable value A to 30
Set alterable value B to 200
Set alterable value C to 0
Pudsie the Cat: Set alterable value B to 100
Set alterable value A to 1
Snail: Destroy
Gangster: Set position at (948, 371)
Fireball 2: Destroy
Pint of Suds: Set position at (948, 371)
Sword Icon: Set position at (122, 250)
Pint of Suds 2: Set position at (948, 371)

10. Normal Guy collides with the background
Normal Guy: Stop

11. Normal Guy leaves the play area
Normal Guy: Stop

12. Repeat while "Space bar" is pressed
+ Score ("Player 3") mod 10 = 1
Normal Guy: Change animation sequence to Attack
Change speed of animation to 10
Sword: Set position at (0, 0) from Normal Guy
Set direction to Dir "Normal Guy"

13. Repeat while "Space bar" is pressed
+ Score of Player 3 mod 10 = 2
+ Number of Fireball 2 in zone (0,0) to (640, 480) < 5
Create New Objects: Create Fireball 2 at (26, -5) from Normal Guy
Normal Guy: Change animation sequence to Attack
Change speed of animation to 10
Fireball 2: Start
Start animation
Set speed to 12
Set direction to Dir "Normal Guy"
Laser 4: Set position at (0, 0) from Normal Guy
Set direction to Dir "Normal Guy"

14. Repeat while "Space bar" is pressed
+ Score of Player 3 = 33
Normal Guy: Change animation sequence to Attack
Change speed of animation to 10
Magic Sword: Set position at (0, 0) from Normal Guy
Set direction to Dir "Normal Guy"

15. Normal Guy animation Attack is playing
+ Score "Player 3" mod 10 = 1
Sword: Set position at (0, 0) from Normal Guy
Set direction to Dir "Normal Guy"

16. Normal Guy animation Attack is playing
+ Score "Player 3" mod 10 = 2
Laser 4: Set position at (0, 0) from Normal Guy
Set direction to Dir "Normal Guy"

17. Normal Guy animation Attack is playing
+ Score "Player 3" mod 10 = 3
Magic Sword: Set position at (0, 0) from Normal Guy
Set direction to Dir "Normal Guy"

18. Normal Guy animation Attack is over
Normal Guy: Change animation sequence to Walking
Sword: Set position at (-100, 200)
Laser 4: Set position at (-100, 200)
Magic Sword: Set position at (-100, 200)

Events 19-38 are the same as Events 19-38 in Frame 1.

39. Number of Normal Guy in zone (83, -12) to (170, 517) = 1
+ Alterable value A of Merlin 2 = 0
+ Counter 1 < 6
+ Lives ("Player 4") < 2

Sound: Play sample fluxmid
Player 1: Ignore control
Normal Guy: Change animation sequence to Appearing
Stop animation
Merlin 2: Set alterable value A to 1
Text 1: Display paragraph 1 at (452, 52)

Events 39-50: This event starts off a silly little sequence in which it appears that the Wizard has frozen Normal Guy with a spell. He tells Normal Guy to go away, then releases him. He also creates his pet cat. In Event 44, as Normal Guy continues forward, the Wizard freezes him again, but finally relents and offers a deal. Meanwhile the cat is sending Snails toward Normal Guy, who is helpless (unless he thinks to draw his sword). Anyway, he gets all his hit points back in Event 50.

40. Alterable value A of Merlin 2 = 1
+ Every 01'00"

Counter 1: Add 1 to counter

41. Counter 1 = 1
+ Alterable value A of Merlin 2 = 1

Text 1: Flash paragraph 1 at (452, 52) for 00'25"

42. Counter 1 = 4
+ Alterable value A of Merlin 2 = 1

Create New Objects: Create Blizzard at (-75, -36) from Merlin 2

43. Counter 1 = 5
+ Alterable value A of Merlin 2 = 1

Create New Objects: Create Pudsie the Cat at (-83, -16) from Merlin 2
Player 1: Restore control
Normal Guy: Change animation sequence to Stopped
Start animation
Merlin 2: Set alterable value A to 2
Pudsie the Cat: Set alterable value A to 1
Set alterable value B to 100
Blizzard: Destroy
Text 1: Erase
Counter 1: Set counter to 0

44. Number of Normal Guy in zone (171, 116) to (261, 512) = 1
+ Alterable value A of Merlin 2 = 2
+ No more Genie in zone (170, 7) to (638, 479)
+ Lives ("Player 4") < 3

Sound: Play sample fluxmid
Player 1: Ignore control
Normal Guy: Change animation sequence to Appearing
Stop animation
Merlin 2: Set alterable value A to 3

45. Alterable value A of Merlin 2 = 3
+ Every 01'00"
    Counter 1: Add 1 to counter

46. Counter 1 = 1
+ Alterable value A of Merlin 2 = 3
    Text 2: Display paragraph 1 at (268, 21)

47. Counter 1 = 4
+ Alterable value A of Merlin 2 = 3
    Text 2: Erase

48. Counter 1 = 5
+ Alterable value A of Merlin 2 = 3
    Text 2: Display paragraph 2 at (268, 21)

49. Counter 1 >= 7
+ Every 03'00"
+ Alterable value A of Merlin 2 < 20
    Text 2: Next paragraph

Event 49: This event displays the next paragraph of Text 2 every three seconds.

50. Counter 1 = 21
+ Alterable value A of Merlin 2 < 20
    Player 1: Restore control
        Set Score to lives ("Player 1") * 100
    Player 2: Add 40 to Number of Lives
    Player 4: Set Number of Lives to lives ("Player 4") / 100 * 100 + 2
    Normal Guy: Change animation sequence to Stopped
        Start animation
    Merlin 2: Set alterable value A to 4
        Add 1 to alterable value C
    Pudsie the Cat: Set alterable value A to 0
    Text 2: Erase
    Counter 1: Set counter to 0

Event 50: Once all the text has displayed, control is returned to the player, the cat stops sending out snails, Player 4 Lives is updated so this sequence won't repeat, and Merlin 2's A and C values are updated.

51. Blizzard animation Stopped is over
    Blizzard: Destroy

52. Every 03'00"
+ Pudsie the Cat is in the play area
+ Alterable value A of Pudsie the Cat = 1
    Create New Objects: Create Snail at (-27, -8) from Pudsie the Cat
    Snail: Change animation direction to "left"
        Look at (0, 0) from Normal Guy
        Set speed to 10

Event 52: This is the event that controls the distribution of Snails from Pudsie the Cat.

53. Collision between Normal Guy and Snail

Sound: Play sample uhoh1
Player 1: Subtract 10 from Score
Snail: Destroy

Events 53 & 54: Every time a snail hits Normal Guy, it takes 10 points from his hit points, but if his HP fall to 10 or below, it won't hurt him. So Normal Guy can't be killed by the Snails.

54. Collision between Normal Guy and Snail

+ Score of Player 1 <= 10

Sound: Play sample cough
Snail: Bounce
Set speed to 5

55. Collision between Sword and Snail

Sound: Play sample splat
Create New Objects: Create Firework at (0, 0) from Snail
Snail: Destroy

56. Firework animation Stopped is over

Firework: Destroy

57. Snail leaves the play area

Snail: Wrap

58. Collision between Sword and Pudsie the Cat

Sound: Play sample bark3
Pudsie the Cat: Sub 20 to alterable value B
Set alterable value A to 1

59. Alterable value B of Pudsie the Cat <= 0

+ Number of Pudsie the Cat in zone (323, 82) to (607, 312) = 1

Sound: Play sample beastcry
Create New Objects: Create Disappear at (0, 0) from Pudsie the Cat
Player 2: Add 10 to Number of Lives
Pudsie the Cat: Destroy
Text 3: Display paragraph 1 at (268, 21)

Event 59: Notice that if you kill Pudsie the Cat, Player 2 Lives is incremented by 10. What this does is raise the price of the Magic Sword by 1000 gold, as you will see in later events. Obviously, the Wizard is none too pleased that you've offed his pet.

60. Disappear animation Stopped is over

Disappear: Destroy
Text 3: Erase

61. Collision between Sword and Merlin 2

Sound: Play sample alien
Create New Objects: Create Firework at (0, 0) from Normal Guy
Normal Guy: Set position at (-62, 57)
Merlin 2: Set alterable value A to 5

Events 61 & 62: If you thought the Wiz was miffed when you killed the cat, check out what happens if you attack him. It's snuffola.

62. Firework animation Stopped is over
+ Alterable value A of Merlin 2 = 5

Player 1: Set Score to 0
Firework: Destroy

63. Collision between Normal Guy and Oil Lamp
+ Alterable value A of Oil Lamp = 0
+ Lives of ("Player 4") < 500

Sound: Play sample monster2
Create New Objects: Create Genie at (-2, -20) from Oil Lamp
Normal Guy: Bounce
Oil Lamp: Set alterable value A to 1
Genie: Set alterable value A to 0

Events 63-66: These events occur once during the game. The first time Normal Guy collides with the Oil Lamp, the Genie appears and, though a bit taciturn, he does give the player 1000 gold. Nice deal. Look at the values of Player 4 Lives (which lets the program know if the Genie has been activated or not), and the alterable values of various objects, which are used to track the timing of the text and the delivery of the gold.

64. Genie animation Stopped is over
+ Genie is in the play area

Genie: Set alterable value A to 10
Text 4-6: Erase
Text 8: Erase
Text 10: Display paragraph 1 at (268, 21)

65. Alterable value A of Genie = 10
+ Every 01'00"

Counter 1: Add 1 to counter

66. Counter 1 = 5
+ Alterable value A of Genie = 10

Sound: Play sample belllo
Player 2: Add 1000 to Score
Player 4: Set Number of Lives to lives("Player 4") mod 100 + 500
Merlin 2: Add 1 to alterable value C
Genie: Destroy
Text 10: Erase
Counter 1: Set counter to 0

67. Collision between Normal Guy and Table

Sound: Play sample dropobj
Normal Guy: Bounce

68. Collision between Normal Guy and Oil Lamp
+ Alterable value A of Oil Lamp > 0
+ Alterable value A of Oil Lamp < 5

Sound: Play sample cashreg
Player 2: Add 50 to Score
Normal Guy: Bounce
Oil Lamp: Add 1 to Oil Lamp

Events 68-69: Colliding with the Oil Lamp itself can be lucrative, but there's a limit to how many times it can be milked for cash.

69. Collision between Normal Guy and Oil Lamp
+ Alterable value A of Oil Lamp > 5
    Sound: Play sample clang2
    Normal Guy: Bounce

70. Collision between Normal Guy and M. Sword Icon
+ Lives ("Player 4") < 3
    Sound: Play sample clatter
    Ring: Set alterable value A to 1
    Text 8: Display paragraph 1 at (452, 52)

Events 70-73: If the player tries to get the Magic Sword before performing the Wizard's task (in which Player 4 Lives are set to 3 or higher), then the Wizard just tells him not to touch it. Basically, the same applies to the Ring, but there's a lot more to do before he can get the Ring. Events 72 & 73 control a small timer loop that erases the text after a couple of seconds.

71. Collision between Normal Guy and Ring
+ Lives ("Player 4") < 7
    Sound: Play sample clatter
    Ring: Set alterable value A to 1
    Text 8: Display paragraph 1 at (452, 52)

72. Alterable value A of Ring = 1
+ Every 01'00"
    Counter 1: Add 1 to counter

73. Counter 1 = 2
+ Alterable value A of Ring = 1
    Ring: Set alterable value A to 0
    Text 8: Erase
    Counter 1: Set counter to 0

74. Collision between Normal Guy and Pudsie the Cat
    Normal Guy: Bounce

75. Collision between Normal Guy and Merlin 2
    Normal Guy: Bounce

76. Collision between Normal Guy and Genie
    Normal Guy: Bounce

77. Collision between Normal Guy and Supernova
    GSC: Jump to frame number 1
    Player 2: Set Number of Lives to lives(Player 2") / 10 * 10 + 2

Events 77 & 78: These two events control how the player can get back to Frame 1 or go on to Frame 12.

78. Collision between Normal Guy and UFO
    GSC: Jump to frame number 12
    Player 2: Set Number of Lives to lives(Player 2") / 10 * 10 + 4

79. Alterable value A of Merlin 2 = 10
    Merlin 2: Set alterable value A to 11

Events 79 & 80: This is the first event that occurs after the player has gotten rid of the Troll in Frame 12. By setting alterable value A of Merlin 2 to 10, a new sequence of events is set in motion. This sequence is simple and is started by Event 3, which reads that Player 4 Lives mod 10 = 3. What this means in game terms is that the player has defeated the Troll but not touched the book. So the Wizard says he's lost his book and can't sell the Magic Sword until he finds out where it is. The player must return to Frame 12 and touch the book, at which point we find out how nasty the spider is.

80. Alterable value A of Merlin 2 = 11

+ Collision between Normal Guy and M. Sword Icon

Merlin 2: Set alterable value A to 12
Text 4: Display paragraph 1 at (320, 26)

81. Alterable value A of Merlin 2 = 20

Sound: Play sample ahem (uninterruptable)
Merlin 2: Set alterable value A to 21

Event 81: In this event, where Player 4 Lives mod 10 = 4, the player has both defeated the Troll and touched the Book. Now the Wizard will attempt to sell the Magic Sword, if the player has enough gold. Notice how alterable value A of Merlin 2 is changed with each event to make sure that an event is cycled only once.

82. Alterable value A of Merlin 2 = 21

+ Collision between Normal Guy and M. Sword Icon

Merlin 2: Set alterable value A to 21
Text 5-7: Erase

83. Alterable value A of Merlin 2 = 22

+ Lives ("Player 2") / 10 = 5

Merlin 2: Set alterable value A to 23
Genie: Set alterable value A to 11
Text 5: Display paragraph 1 at (309, 25)
Counter 1: Set counter to 0

Events 83 & 84: These events read whether the price of the Magic Sword was set at 5000 or 6000 gold and display the appropriate paragraph and set the appropriate value A for Merlin 2.

84. Alterable value A of Merlin 2 = 22

+ Lives ("Player 2") / 10 = 6

Merlin 2: Set alterable value A to 25
Text 6: Display paragraph 1 at (309, 25)
Counter 1: Set counter to 0

85. Alterable value A of Merlin 2 = 23

+ Every 01'00"

Counter 1: Add 1 to counter

Events 85 & 86: These are parallel events, depending on the price of the sword. They start a counter timer in motion.

86. Alterable value A of Merlin 2 = 25

+ Every 01'00"

Counter 1: Add 1 to counter

87. Counter 1 = 1
+ Alterable value A of Merlin 2 = 23
+ Score ("Player 2") >= 5000

Player 2: Subtract 5000 from Score
Player 3: Set Score to score("Player 3") mod 10 + 30
Player 4: Set Number of Lives to lives("Player 4") / 100 * 100 + 5
Merlin 2: Set alterable value A to 24
M. Sword Icon: Destroy
Text 11: Flash paragraph 1 at (228, 397) for 00'25"

Events 87 & 88: These events occur if the player has enough money to pay for the Magic Sword. Essentially, the sword is given to the player (Player 3 Score is added to), the gold is taken (Player 2 Score), the game status is updated (Player 4 Lives), and instructions are placed on the screen. Merlin 2's value A is set to another number to complete the process.

88. Counter 1 = 1
+ Alterable value A of Merlin 2 = 25
+ Score ("Player 2") >= 6000

Player 2: Subtract 6000 from Score
Player 3: Set Score to score("Player 3") mod 10 + 30
Player 4: Set Number of Lives to lives("Player 4") / 100 * 100 + 5
Merlin 2: Set alterable value A to 26
M. Sword Icon: Destroy
Text 11: Flash paragraph 1 at (228, 397) for 00'25"

89. Counter 1 = 1
+ Alterable value A of Merlin 2 = 23
+ Score ("Player 2") < 5000

Merlin 2: Set alterable value A to 20
Text 5: Erase
Text 7: Display paragraph 1 at (320, 30)
Counter 1: Set counter to 0

Events 89 & 90: These events occur when the player doesn't have enough gold. The Wizard won't sell the sword, but he's kind enough to inform the player that he (or she) needs more gold. At this point, the player must get more gold, which is easy to obtain in Frame 11.

90. Counter 1 = 1
+ Alterable value A of Merlin 2 = 25
+ Score ("Player 2") < 6000

Merlin 2: Set alterable value A to 20
Text 6: Erase
Text 7: Display paragraph 1 at (320, 30)
Counter 1: Set counter to 0

91. Alterable value A of Merlin 2 = 30

Sound: Play sample ahem
Merlin 2: Set alterable value A to 31
Counter 1: Set counter to 0

Event 91: This event occurs when the spider has been killed and the book taken. In the subsequent events, the Wizard offers his Ring as a reward. Once the player has taken the Ring, hitting "H" will always heal Normal Guy completely.

92. Alterable value A of Merlin 2 = 31
+ Every 01'00
Counter 1: Add 1 to counter

93. Counter 1 = 1
+ Alterable value A of Merlin 2 = 31
Text 9: Display paragraph 1 at (232, 26)

94. Counter 1 = 5
+ Alterable value A of Merlin 2 = 31
Player 4: Set Number of Lives to lives ("Player 4") / 10 * 10 + 7
Merlin 2: Set alterable value A to 32
Ring: Set position at (426, 182)
Text 9: Display paragraph 2 at (232, 26)

95. Collision between Normal Guy and Ring
+ Lives ("Player 4") mod 10 = 7
Player 4: Set Number of Lives to lives("Player 4") mode 100 + 800
Ring: Destroy

96. Fireball 2 leaves the play area
Fireball 2: Bounce

97. Every 00'01"
Counter 2: Set counter to value A ("Merlin 2")

Events 97 & 98: These events were used during testing to track the value A of Merlin 2 and to speed up the process of displaying the text for testing purposes.

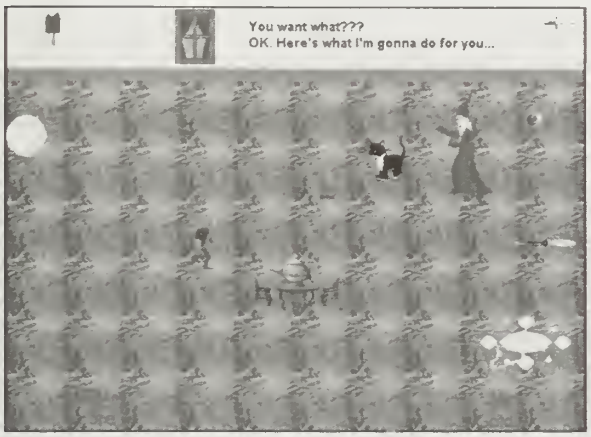
98. Upon pressing "B"
Counter 1: Add 1 to counter

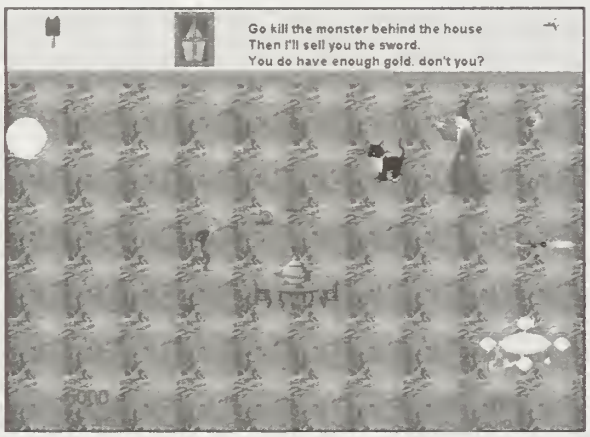
99. Repeat while "L" is pressed
+ Repeat while "I" is pressed
+ Upon pressing "V"
+ Score of Player 4 <= 2000
Player 4: Add 10,000 to Score

100. Upon pressing "H"
+ Lives of Player 4 / 100 = 8
Sound: Play sample evilhaa (uninterruptible)
Player 1: Add 300 to Score

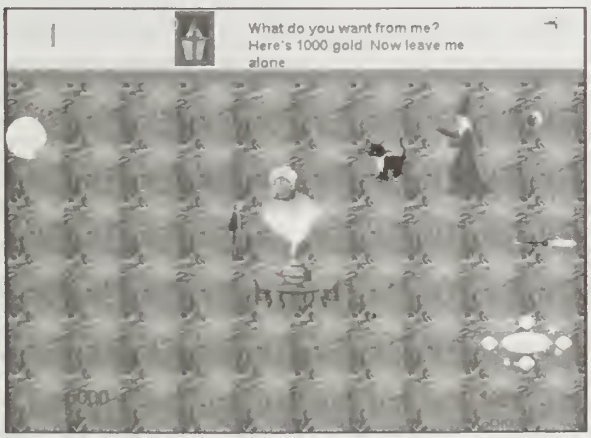
101. End of Level
Sound: Play sample cuckclok

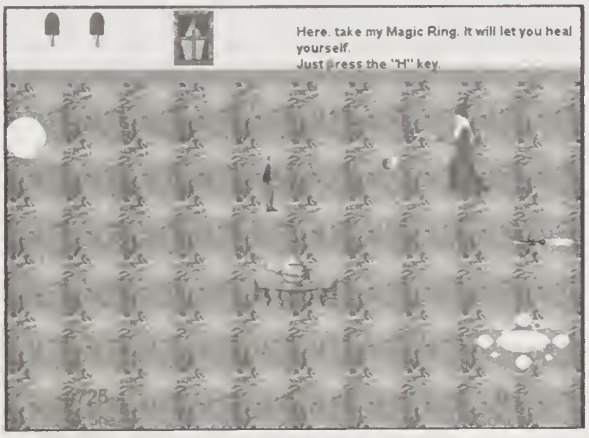
102. Upon pressing "F1"
GSC: Jump to frame number 14
Player 1: Add 20 to Number of lives





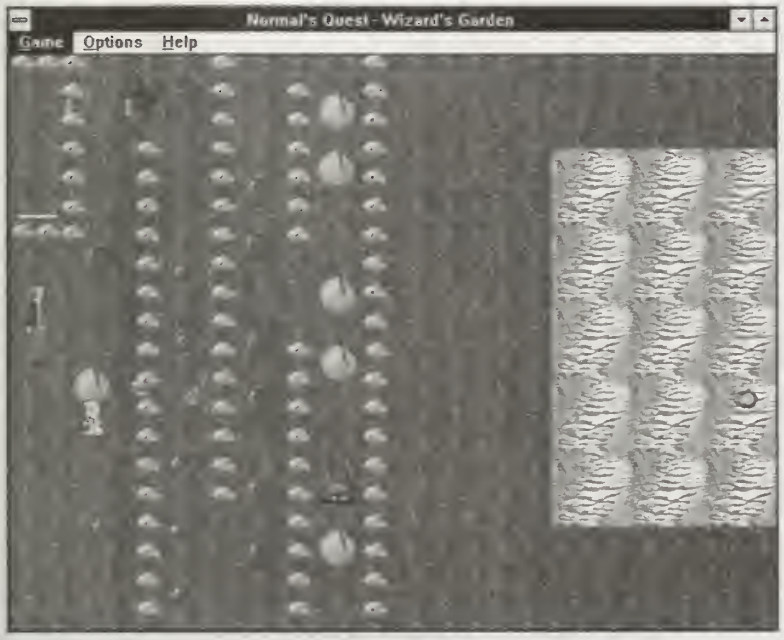
Four views of Frame 2. In the first two views (above), Normal Guy is frozen in place while the wizard makes a deal. In the third view (lower), the genie from the lamp gives Normal Guy some gold. In the final view, Normal Guy gets his reward after defeating the spider.





Eighteen: Normal's Quest (Frame 12)

The Wizard's Back Yard



This frame is pretty complex, and actually has two completely different games in one frame. The first game involves a digging troll who keeps eating the Wizard's fruit. The goal is to destroy the troll before he can eat all the fruit. Once this is accomplished, the giant spider will appear. Also a book will appear. If Normal Guy touches the Magic Book, then the spider will tell him to forget it and get out. The spider will also start spitting venomous silk at Normal Guy. At this point, the Wizard will want his book back, and will sell the Magic Sword to Normal Guy—if he has enough gold. Once Normal Guy has the Magic Sword, he can return and defeat the spider, get the book, and return to the Wizard for a reward.

Active Objects

Bubble
Description: Power Up 11 object from Power Ups library

*Apple 2
Description: Apple

*Orange
Description: Orange

*Grapes
Description: Grapes

*Strawberry
Description: Strawberry

** Items from the Vegetation library*

Burger
Description: Burger from the Fast Food Items library

Baby Closing Eyes
Description: Baby from People library
Movement: Taped

Note: At beginning of level, Baby Closing Eyes moves along a path that snakes between the rocks. If the player gets to the baby before the Troll does, a Potion appears near the place where the player enters the frame.

Dot 1
Description: Dot

Bomb
Description: Explosion 12 from Explosions library

Troll
Description: Animated Troll from Myth and Monsters library

Note: Some special animations were created for this character. Also it was resized to make it somewhat smaller.

Snail
Description: Same snail as in Frame 2

Magic Rock
Description: Rock from Heaven, Earth, Fire and Water library

Magic Rock 2
Description: Another Rock

Wallop
Description: From Special Effects library

Book
Description: Book from Collectable Items library

Spider Mouth
Description: From End of level baddies library

Spider Legs 1-6
Description: These are spider legs from the End of level baddies library

Note: Each of the three legs in the original library was duplicated and rotated 180 degrees.

Potion
Description: From Collectable Items library

Explosion 4
Description: Explosion from Explosions library

Small Explosion
Description: Also from Explosions library

Big Grass
Description: Grass Patch from Vegetation library modified to a 200 x 200 square

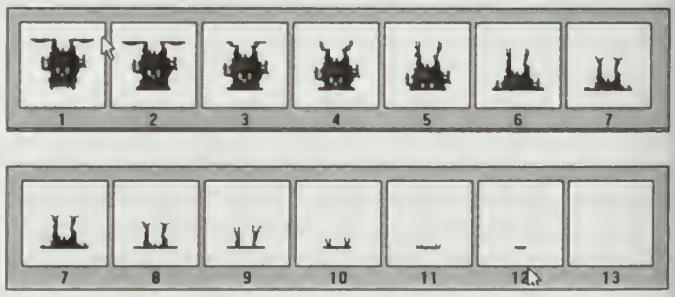
Mud 1
Description: From Textures library

Game Objects

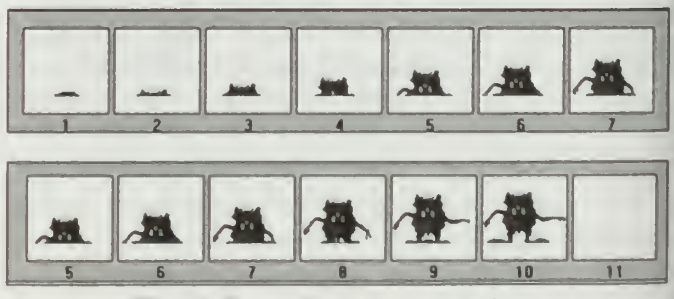
Counters 1, 2, 3, & 5
Display as: Hidden
Initial: 0
Minimum: 0
Maximum: 999999999

Counter 4
Display as: Vertical Bar
Initial: 0
Minimum: 0
Maximum: 1000

Counter 6
Display as: Hidden
Initial: 0
Minimum: 0
Maximum: 10



Troll Jump In animation



Troll Pop Out animation

Counter 7
Display as: Hidden
Initial: 0
Minimum: 0
Maximum: 5

Text 1
Paragraph 1: No more Bombs...

Text 2
Paragraph 1: You don't want to touch that...
Go Away!!!

Event List

1. Start of Level
+ Number of lives of Player 4 < 100

Event 1: This event is used during testing the individual frame. Basic global variable information is set up here in addition to the conditions set in Event 2.

2. Start of Level
+ lives of Player 4 mod 10 < 3

Shield: Set position at (50, 30)
Baby Closing Eyes: Set speed to 30
Troll: Set alterable value B to 1000
Snail: Destroy
Wallop: Destroy
Spider Mouth: Set alterable value B to 100
Spider Body: Set alterable value A to 0
Set alterable value B to 1000
Set alterable value C to 0
Set position at (900, 200)
Spider Legs 1-6: Set alterable value B to 75
Gangster: Set position at (800, 250)
Fireball 2: Destroy
Pint of Suds: Set position at (800, 250)
Pint of Suds 2: Set position at (800, 250)
Counters 4 & 6: Set counter to 0

Event 2: This is the standard starting event that takes place every time the player enters this area until the Troll is defeated.

Events 3 & 4 control the the placement of Shield objects depending on the value of Player 1 Lives. See Frame 1, Events 3 & 4.

5. Start of Level
+ Number of lives of Player 2 mod 10 = 4

Normal Guy: Set position at (23, 259)
Change animation sequence to Stopped

6. Start of Level

+ Number of lives of Player 2 mod 10 = 5

Normal Guy: Set position at (23, 104)
Change animation sequence to Stopped

Events 5 & 6: These events are used to position Normal Guy properly, depending on whether he came from Frame 1 or Frame 2. A special number (5) is used to show that he came from Frame 1. If so, Normal Guy is placed in the rocky rectangle in the upper left corner of the screen and can't get into the action. Only by going through the Wizard's House can he actually participate in this frame's action.

7. Start of Level

+ lives of Player 4 mod 10 >= 3
+ lives of Player 4 mod 10 < 5

Create New Objects: Create Book at (314, 254)
Normal Guy: Set direction to "right"
Set alterable value A to 1
Shield: Set position at (50, 30)
Baby Closing Eyes: Set speed to 30
Troll: Set alterable value B to 1000
Snail: Destroy
Wallop: Destroy
Magic Rock 2: Destroy
Spider Mouth: Set alterable value B to 100
Spider Body: Set alterable value A to 2
Set alterable value B to 1000
Set alterable value C to 0
Set position at (532, 236)
Spider Legs 1-6: Set alterable value B to 75
Gangster: Set position at (800, 250)
Fireball 2: Destroy
Pint of Suds: Set position at (800, 250)
Pint of Suds 2: Set position at (800, 250)
Counters 4 & 6: Set counter to 0

Event 7: This event starts the level once the Troll has been defeated, but before the player has gotten the Magic Sword.

8. Start of Level

+ lives of Player 4 mod 10 = 5

Create New Objects: Create Book at (314, 254)
Normal Guy: Set direction to "right"
Set alterable value A to 1
Shield: Set position at (50, 30)
Baby Closing Eyes: Set speed to 30
Troll: Set alterable value B to 1000
Snail: Destroy
Wallop: Destroy
Magic Rock 2: Destroy
Spider Mouth: Set alterable value B to 100
Spider Body: Set alterable value A to 1

Set alterable value B to 1000
Set alterable value C to 0
Set position at (532, 236)
Spider Legs 1-6: Set alterable value B to 75
Gangster: Set position at (800, 250)
Fireball 2: Destroy
Pint of Suds: Set position at (800, 250)
Pint of Suds 2: Set position at (800, 250)
Counters 4 & 6: Set counter to 0

Event 8: This start of level event takes place once the player has gotten the Magic Sword, but before the spider has been defeated.

9. Start of Level
+ lives of Player 4 mod 10 >= 6

Event 9 is the same as event 8 except that the Book is not created. This is used after the spider has been defeated the first time. The player can return and fight the spider again, just for grins.

10. Normal Guy collides with the background
Normal Guy: Stop

11. Normal Guy leaves the play area on the bottom, top or right
Normal Guy: Stop

12. Normal Guy leaves the play area on the left
+ lives ("Player 2") mod 10 = 4
GSC: Jump to frame number 2
Player 2: Set Number of Lives to lives("Player 2") / 10 * 10 + 2

Events 12 & 13: Depending on where the player came from, Normal Guy jumps to Frame 1 or Frame 12. The numbers in Player 2 Lives are used to determine this.

13. Normal Guy leaves the play area on the left
+ lives ("Player 2") mod 10 = 5
GSC: Jump to frame number 1
Player 2: Set Number of Lives to lives("Player 2") / 10 * 10 + 2

Events 14-38 are the same as Events 14-38 in Frame 1.

39. Normal Guy animation Attack is playing
+ score("Player 3") mod 10 = 2
Laser 4: Set position at (0, 0) from Normal Guy
Set direction to Dir "Normal Guy"

40. Normal Guy animation Attack is playing
+ score("Player 3") mod 10 = 3
Magic Sword: Set position at (0, 0) from Normal Guy
Set direction to Dir "Normal Guy"

41. Collision between Normal Guy and Potion
Sound: Play sample fluxcold (uninterruptable)
Player 1: Set score to lives ("Player 1") * 100
Potion: Destroy

42. Collision between Normal Guy and Magic Rock

Sound: Play sample ball6
Normal Guy: Stop

43. Collision between Sword and Magic Rock

Sound: Play sample sword2

44. No more Troll in zone (0, -1) to (405, 483)

+ Pick on of Dot 1
+ Alterable value A of Spider Bod = 0

Dot 1: Destroy
Troll: Set position at (5, -5) from Dot 1
Change animation sequence to Pop out
Set alterable value A to 1
Set alterable value C to 1
Counter 1: Set counter to 0

Event 44: This event sets the Troll at a Dot 1 position whenever there is no Troll in the area (and when Spider Bod value A = 0, which is a way of preventing the Troll from appearing later in the game). Notice that each time the Troll is created near a Dot 1, that Dot 1 is destroyed. The Dot 1 objects are placed near the fruits, scattered between the rows of rocks. As the Troll jumps in and out of the ground, he eats more fruits until all the Dot 1 objects are gone. In Event 73, when this is true, one more Dot 1 is placed near the Grapes. If the Troll eats the Grapes, the level restarts.

45. Alterable value A of Troll = 1

+ Every 01'00"

Counter 1: Add 1 to counter

Events 45-49: The counter sets in motion several events. If there are no Snails, then one is created near the Troll. When Counter 1 reaches 3, then the Troll shoots a Burger at Normal Guy. When Counter 1 reaches 5, the Troll's animation is changed and he appears to dive into the ground. When the animation sequence is over, the Troll is repositioned out of the play area.

46. Counter 1 = 1

+ No more Snail in zone (-8, -11) to (409, 490)

Create New Objects: Create Snail at (0, 14) from Troll
Snail: Set alterable value A to 1
Set alterable value B to 100
Counter 1: Add 1 to counter

47. Counter 1 = 3

Troll: Shoot Burger at speed 28 toward (2, -15) from Normal Guy
Counter 1: Add 1 to counter

48. Counter 1 = 5

Troll: Change animation sequence to Jump in

49. Troll animation Jump in is over

Troll: Set position at (-51, 224)

50. Collision between Troll and Apple 2

Sound: Play sample tsk tsk
Apple 2: Destroy

Events 50-53: If the Troll collides with a fruit, it is destroyed. Once all the other fruits are gone, the Grapes are the last ones. If the Troll eats the Grapes, the frame is restarted (see Event 74).

51. Collision between Troll and Orange

Sound: Play sample tsk tsk
Orange: Destroy

52. Collision between Troll and Strawberry

Sound: Play sample tsk tsk
Strawberry: Destroy

53. Collision between Troll and Grapes

Sound: Play sample youlose (uninterruptable)
Grapes: Destroy

54. Collision between Troll and Normal Guy

+ Troll animation Stopped is playing
Sound: Play sample pop5
Player 1: Subtract 5 from Score
Normal Guy: Stop

Event 54: Colliding with the Troll is not a good idea for Normal Guy.

55. Alterable value A of Snail = 1

+ Every 01'00"
Counter 2: Add 1 to counter

Events 55-62: If the Snail comes in contact with a fruit, a counter is started. Once the counter reaches 6, the fruit is destroyed and the counter and Snail values are reset. This means that the player has six seconds in which to kill the Snail before it eats a fruit. Of course this does no good, really, because it's the Troll you have to destroy, so this is a sort of red herring (red snail?).

56. Collision between Snail and Apple 2

+ Counter 2 > 2
Snail: Stop
Set alterable value A to 1
Counter 2: Set counter to 0

57. Collision between Snail and Orange

+ Counter 2 > 2
Snail: Stop
Set alterable value A to 1
Counter 2: Set counter to 0

58. Collision between Snail and Strawberry

+ Counter 2 > 2
Snail: Stop
Set alterable value A to 1
Counter 2: Set counter to 0

59. Counter 2 >= 6

+ Snail is overlapping Apple 2
Apple 2: Destroy

Snail: Set alterable value A to 0
Start
Counter 2: Set counter to 0

60. Counter 2 >= 6
+ Snail is overlapping Orange
Orange: Destroy
Snail: Set alterable value A to 0
Start
Counter 2: Set counter to 0

61. Counter 2 >= 6
+ Snail is overlapping Strawberry
Strawberry: Destroy
Snail: Set alterable value A to 0
Start
Counter 2: Set counter to 0

62. Counter 2 >= 7
+ Snail is stopped
Snail: Set alterable value A to 0
Start

63. Collision between Snail and Magic Rock
Snail: Bounce

64. Snail leaves the play area
Snail: Bounce

65. Alterable value B of Snail <= 0
Create New Objects: Create Wallop at (-13, 8) from Snail
Snail: Destroy
Counter 2: Set counter to 0

66. Wallop animation Stopped is over
Wallop: Destroy

67. Collision between Sword and Snail
Snail: Sub 5 to alterable value B

68. Collision between Glooper and Snail
Snail: Sub 5 to alterable value B

69. Collision between Fireball 2 and Snail
Snail: Sub 25 to alterable value B

70. Collision between Sword and Troll
+ Alterable value C of Troll = 1
Troll: Sub 75 to alterable value B
Set alterable value C to 0
Change animation sequence to Jump in

Events 70-72: Notice that you get one hit at the Troll before he jumps back into the ground, thanks to alterable value C.

71. Collision between Glooper and Troll
+ Alterable value C of Troll = 1
Troll: Sub 50 to alterable value B

Set alterable value C to 0
Change animation sequence to Jump in

72. Collision between Fireball 2 and Troll

+ Alterable value C of Troll = 1

Troll: Sub 50 to alterable value B
Set alterable value C to 0
Change animation sequence to Jump in

73. No more Dot 1 in zone (6, -4) to (359, 481)

Create New Objects: Create Dot 1 at (1, -19) from Grapes

Events 73 & 74: These events have already been described. If the Troll has eaten all the fruits and appeared at all the Dot 1s, then a new Dot 1 is created near the Grapes. If the Troll eats the Grapes, then the lever is restarted and the player loses 1000 points.

74. No more Grapes in zone (-13, 9) to (348, 494)

GSC: Restart current level
Player 4: Subtract 1000 from Score

75. Collision between Normal Guy and Baby Closing Eyes

Sound: Play sample babycry4
Create New Objects: Create Potion at (72, 226)
Baby Closing Eyes: Destroy

Events 75 & 76: If the player can get to the Baby first, a healing Potion is created. Otherwise, the Baby is destroyed by the Troll. Note that in the second part of this frame, after the Troll has been defeated, the player will always be able to get to the Baby and therefore get the Potion.

76. Collision between Troll and Baby Closing Eyes

Sound: Play sample babycry1
Baby Closing Eyes: Destroy

77. Collision between Burger and Normal Guy

Sound: Play sample yo
Player 1: Subtract 5 from Score
Burger: Destroy

78. Collision between Burger and Sword

Burger: Destroy

79. Every 00'10"

+ Score of Player 3 < 33

Counter 4: Set counter to Value B ("Troll")

Event 79: This event sets the hit points of the Troll (value B) to Counter 4, which is a gradiated vertical bar situated in the upper left corner of the play area. So you can see how much damage you're doing to the Troll as you race him to the fruits.

80. Alterable value B of Troll <= 0

+ Lives("Player 4") mod 10 < 3

Sound: Play sample boom1 (uninterruptable)

Create New Objects: Create Bomb at (308, 262)
Player 4: Set Number of Lives to lives("Player 4") / 10 * 10 + 3
Troll: Destroy
Snail: Destroy
Bomb: Change animation sequence to Bomb

Events 80 & 81: If the Troll's hit points (value B) fall to or below zero, then the Troll is destroyed. Also, a Bomb is created near some rocks and the rocks are destroyed (in Event 81). Player 4 Lives is updated to reflect that the Troll has been dispatched. In Event 81 the Book is created at the site of the explosion after the Bomb animation is completed. Notice that Spider Bod value A is set to 2. This is the condition needed to bring the Spider onto the screen.

81. Bomb animation Bomb is over
+ Score of Player 3 < 30
Create New Objects: Create Book at (314, 254)
Magic Rock 2: Destroy
Bomb: Destroy
Spider Mouth: Set alterable value B to 100
Spider Bod: Set alterable value A to 2
Set position at (532, 236)

82. Counter 2 >= 40
Counter 2: Set counter to 0

83. Normal Guy animation Attack is playing
+ Score of Player 3 > 30
+ No more Bomb in zone (7, -14) to (659, 496)
+ Counter 6 <= 5
+ X("Spider Bod") - X("Normal Guy") > 200
Create New Objects: Create Bomb at (24, -24) from Normal Guy
Magic Sword: Set position at (0, 0) from Normal Guy
Set direction to Dir ("Normal Guy")
Bomb: Stop animation
Set alterable value A to 1
Counter 3: Set counter to X("Spider Bod") - X("Bomb")
Counter 5: Set counter to X("Spider Bod") - X("Bomb") / 2

Event 83: This event is somewhat complex. If Counter 6 is less than 5, the player has gotten the Magic Sword (Player 3 Score > 30), there are not already any bombs in the play area, and the player is not within 200 of the Spider, then a Bomb is created and the distance between the bomb and the Spider Bod is entered into Counter 3. Half the distance is entered into Counter 5. These values will be used in Events 85-87.

84. Always
+ Alterable value B of Spider Bod > 0
Spider Mouth: Set position at (-68, 2) from Spider Bod
Spider Leg 1: Set position at (-13, 69) from Spider Bod
Spider Leg 2: Set position at (-11, -69) from Spider Bod
Spider Leg 3: Set position at (-63, -62) from Spider Bod
Spider Leg 4: Set position at (-62, 58) from Spider Bod
Spider Leg 5: Set position at (-34, 63) from Spider Bod
Spider Leg 6: Set position at (-35, -67) from Spider Bod

Event 84: This event sets the various spider parts at appropriate positions relative to Spider Bod whenever the Spider Bod value B is greater than zero. This way, it isn't necessary to position all the parts, just the body. The parts will follow.

85. Alterable value A of Bomb = 1

+ Every 00'01"
+ Counter 3 >= 0

Bomb: Set X position to X("Bomb") + 8
Set Y position to Y("Bomb") - 4
Counter 3: Subtract 16 from Counter

Events 85-87: Once the Bomb is launched, this routine makes it appear to arc toward the Spider. It's more interesting than simply shooting in a straight line toward the Spider, and you can vary the speed and arc of the Bomb by adjusting the values in this event and Event 87. Basically, the Bomb is moved by a set amount every 1/100th of a second while a set amount is subtracted from Counter 3. When Counter 3 reaches 0, then the Bomb's value A is set to 2 and Event 87 operates, counting down from Counter 5. Notice that in Event 85, the Y position is subtracted from, which makes the Bomb appear to rise toward the top of the screen. In Event 87, Y is added to, making the Bomb fall. If the Player is lined up horizontally with the Spider, then the Bombs will always hit.

86. Counter 3 = 0

Bomb: Set alterable value A to 2

87. Counter 5 > 0

+ Alterable value A of Bomb = 2
+ Every 00'01"

Bomb: Set X position to X("Bomb") + 8
Set Y position to Y("Bomb") + 8
Counter 5: Subtract 4 from Counter

88. Bomb animation Bomb is over

+ Score of Player 3 = 33

Bomb: Destroy
Counter 6: Add 1 counter

Event 88: Every time a Bomb blows up, Counter 6 is incremented. Once six Bombs have been lobbed, no more will be available and a message displays that fact. (see Event 90).

89. Collision between Bomb and Spider Bod

+ Alterable value C of Spider Bod < 2

Sound: Play sample glass 4 (uninteruptable)
Bomb: Set animation sequence to Bomb
Start animation
Set alterable value A to 3
Spider Bod: Set position at (-8, 1) from Spider Bod
Sub 75 to alterable value B
Counter 3: Set counter to 0
Counter 5: Set counter to 0

Event 89: Every time a Bomb hits the Spider, it moves forward a little and loses 75 hit points. Counters 3 and 5 are reset to zero.

90. Counter 6 = 6
Text 1: Flash paragraph 1 at (389, 420) for 00'20"

91. Every 00'10"
+ Score of Player 3 > 30
Counter 4: Set counter to Value B ("Spider Bod")

Event 91: This sets the value of Counter 4 to the value B of Spider Bod if the player has gotten the Magic Sword. This is a way of distinguishing this event from the one earlier in this frame that set Counter 4 to the Troll's value B. Obviously, the player can't have the Magic Sword until the Troll has been destroyed.

92. Alterable value B of Spider Mouth <= 0
Spider Mouth: Destroy

93. Alterable value B of Spider Mouth > 0
+ Every 04'00"
+ Lives ("Player 4") mod 10 >= 4
Spider Mouth: Shoot Explosion 4 toward direction number 10 at speed 68
Shoot Explosion 4 toward direction number 13 at speed 71
Shoot Explosion 4 toward direction number 19 at speed 65
Shoot Explosion 4 toward direction number 22 at speed 100
Shoot Small Explosion toward direction number 16 at speed 62

Events 93 & 94: These events cause the Spider to spit out explosions at regular intervals and in various directions.

94. Alterable value B of Spider Mouth > 0
+ Every 04'00"
+ Lives ("Player 4") mod 10 >= 4
Spider Mouth: Shoot Explosion 4 toward direction number 12 at speed 68
Shoot Explosion 4 toward direction number 15 at speed 71
Shoot Explosion 4 toward direction number 21 at speed 65
Shoot Explosion 4 toward random direction out of 2 (9 or 22) at speed 100
Shoot Small Explosion toward random direction out of 2 (16 or 18) at speed 62

95. Collision between Explosion 4 and Magic Rock
Create New Objects: Create Bubble at (0, 1) from Magic Rock
Magic Rock: Destroy
Explosion 4: Destroy

Events 95-100: When an Explosion 4 hits a Magic Rock, it replaces the Magic Rock with a Bubble. The
player can strike the Bubbles with the Sword to break them and also to gain a Potion for each 5 Bubbles broken.

96. Collision between Normal Guy and Bubble
Sound: Play sample sucker2
Normal Guy: Bounce
Bubble: Flash during 00'20"

97. Collision between Magic Sword and Bubble
+ Counter 7 < 5
Sound: Play sample pop2
Bubble: Destroy
Counter 7: Add 1 to counter

98. Collision between Magic Sword and Bubble
+ Counter 7 = 5
Sound: Play sample pop2
Create New Objects: Create Potion at (0, 0) from Bubble
Bubble: Destroy
Counter 7: Set counter to 0

99. Collision between Sword and Bubble
+ Counter 7 < 5
Sound: Play sample pop2
Bubble: Destroy
Counter 7: Add 1 to counter

100. Collision between Sword and Bubble
+ Counter 7 = 5
Sound: Play sample pop2
Create New Objects: Create Potion at (0, 0) from Bubble
Bubble: Destroy
Counter 7: Set counter to 0

101. Collision between Bubble and Magic Rock
Magic Rock: Destroy

102. No more Spider Mouth in zone (26, 27) to (645, 488)
+ Every 03'00"
+ Alterable value C of Spider Bod < 2
+ Lives ("Player 4") mod 10 >= 4
Spider Bod: Set X position to X("Spider Bod") - 10
Shoot Small Explosion toward random direction (out of 32) at speed 81

Event 102: Once the Spider Mouth has been destroyed, then the Spider starts moving slowly forward, shooting a random Small Explosion every three seconds.

103. Collision between Normal Guy and Spider Leg 1
Sound: Play sample pip
Player 1: Subtract 20 from Score
Normal Guy: Stop

Events 103-108: These events are identical for each of the spider's legs.

109. Collision between Normal Guy and Explosion 4
Sound: Play sample exert2
Player 1: Subtract 10 from Score
Explosion 4: Destroy

110. Collision between Normal Guy and Small Explosion
Sound: Play sample ooh
Player 1: Subtract 20 from Score
Small Explosion: Destroy

111. Collision between Sword and Small Explosion
Sound: Play sample clang2
Small Explosion: Destroy

112. Collision between Sword and Explosion 4
Sound: Play sample clang2
Explosion 4: Destroy

113. Collision between Sword and Spider Leg 1
Sound: Play sample clang2
Spider Leg 1: Sub 5 to alterable value B

113-118: These events are identical, one for each spider leg.

119. Collision between Magic Sword and Spider Leg 1
Sound: Play sample stab2
Spider Leg 1: Sub 38 to alterable value B

Events 119-124: These events are identical, one for each spider leg.

125. Collision between Magic Sword and Explosion 4
Sound: Play sample chop2
Explosion 4: Destroy

126. Collision between Magic Sword and Small Explosion
Sound: Play sample chop2
Small Explosion: Destroy

127. Alterable value B of Spider Leg 1 <= 0
Spider Leg 1: Destroy

Events 127-132: These events are identical, one for each spider leg.

133. Collision between Sword and Spider Mouth
Spider Mouth: Sub 10 to alterable value B

134. Collision between Magic Sword and Spider Mouth
Sound: Play sample chop2
Spider Mouth: Sub 34 to alterable value B
Spider Bod: Sub 34 to alterable value B

135. Collision between Normal Guy and Spider Mouth
Player 1: Subtract 30 from Score

136. No more Spider Mouth in zone (7, 1) to (658, 485)
+ No more Spider Leg 1 in zone (7, 1) to (658, 485)
+ No more Spider Leg 2 in zone (7, 1) to (658, 485)
+ No more Spider Leg 3 in zone (7, 1) to (658, 485)
+ No more Spider Leg 4 in zone (7, 1) to (658, 485)
+ No more Spider Leg 5 in zone (7, 1) to (658, 485)
+ No more Spider Leg 6 in zone (7, 1) to (658, 485)
Spider Bod: Set alterable value C to 1

Events 136-138: Once the mouth and all the legs are destroyed, setting Spider Bod's value C to 1 makes it vulnerable to attack in Events 137 & 138. Notice that all through this level, the Sword could be used, but it's much less effective than the Magic Sword. For a challenge, take on the Spider with the Sword.

137. Collision between Magic Sword and Spider Bod
+ Alterable value C of Spider Bod = 1

Sound: Play sample splat
Spider Bod: Sub 100 to alterable value B

138. Collision between Sword and Spider Bod
+ Alterable value C of Spider Bod = 1

Sound: Play sample splat
Spider Bod: Sub 25 to alterable value B

139. Alterable value B of Spider Bod <= 0
+ Alterable value C of Spider Bod < 2

Sound: Play sample ludwig.b (uninteruptable)
Create New Objects: Create Bomb at (-54, 2) from Spider Bod
Create Wallop at (-62, -37) from Spider Bod
Create Wallop at (-29, 36) from Spider Bod
Create Wallop at (24, -24) from Spider Bod
Create Bomb at (-14, 0) from Spider Bod
Create Bomb at (42, -1) from Spider Bod
Bomb: Change animation sequence to Bomb
Spider Bod: Set alterable value C to 2

Event 139: When the Spider is finally destroyed, there are lots of explosions.

140. Wallop animation Stopped is over
+ Alterable value C of Spider Bod = 2

Wallop: Destroy
Bomb: Destroy
Spider Bod: Destroy

141. Collision between Normal Guy and Book
+ Lives ("Player 4") mod 10 = 3

Player 4: Set Number of Lives to lives("Player 4") / 10 * 10 + 4
Spider Mouth: Set alterable value B to 100
Spider Bod: Set alterable value A to 1
Text 1: Erase
Text 2: Display paragraph 1 at (357, 407)

Events 141 & 142: If Normal Guy touches the Book after the Troll is defeated but before getting the Magic Sword, then Player 4 Lives is updated to let the program know he's found the Book, which effects the events in Frame 2. In Event 142, after the Spider has been destroyed, Normal Guy can take the book and again Player 4 Lives is updated to let the program know that the player has won.

142. Collision between Normal Guy and Book
+ Lives ("Player 4") mod 10 = 5
+ No more Spider Bod in zone (5, 5) to (673, 498)

Player 4: Set Number of Lives to lives("Player 4") / 10 * 10 + 6
Book: Destroy

143. Upon pressing "B"

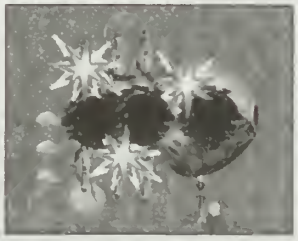
Troll: Sub 500 to alterable value B

Event 143: This is a cheat left in for testing purposes that quickly gets rid of the Troll.

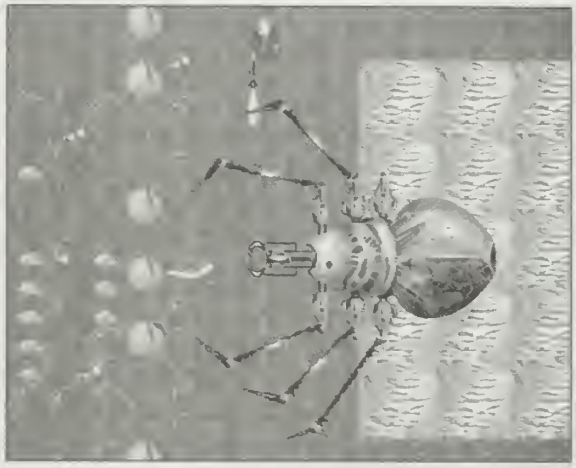
144. Upon pressing "H"
+ Lives of Player 4 / 100 = 8
Sound: Play sample evilhaa (uninterruptible)
Player 1: Add 300 to Score

145. Repeat while "L" is pressed
+ Repeat while "I" is pressed
+ Upon pressing "V"
+ Score of Player 4 <= 2000
Player 4: Add 10,000 to Score

146. End of Level
Sound: Play sample cuckclok

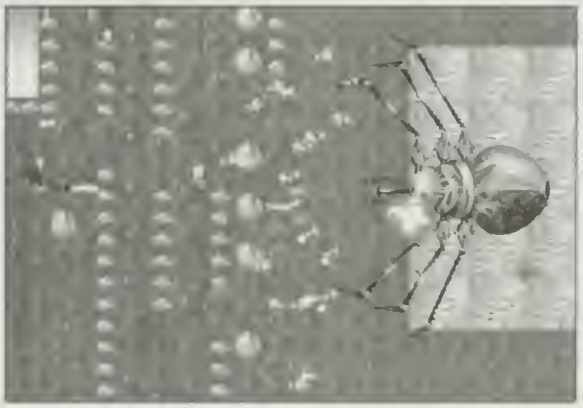


147. Upon pressing "F1"
GSC: Jump to frame number 14
Player 1: Add 120 to Number of lives

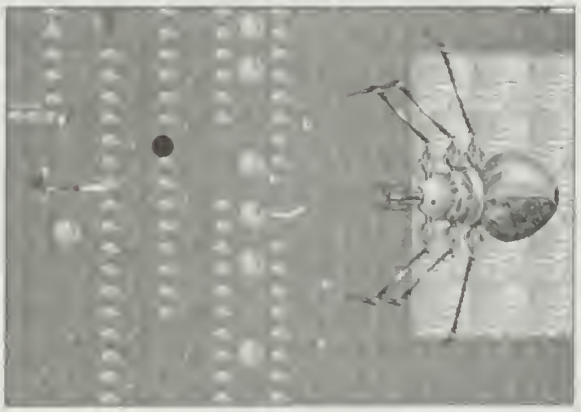


(Top right) Finishing off the spider. First the mouth and legs, then the body. (Middle) Then death and destruction. Time to grab the book and get out.

The Bomb explodes.



Lobbing a Bomb at the spider



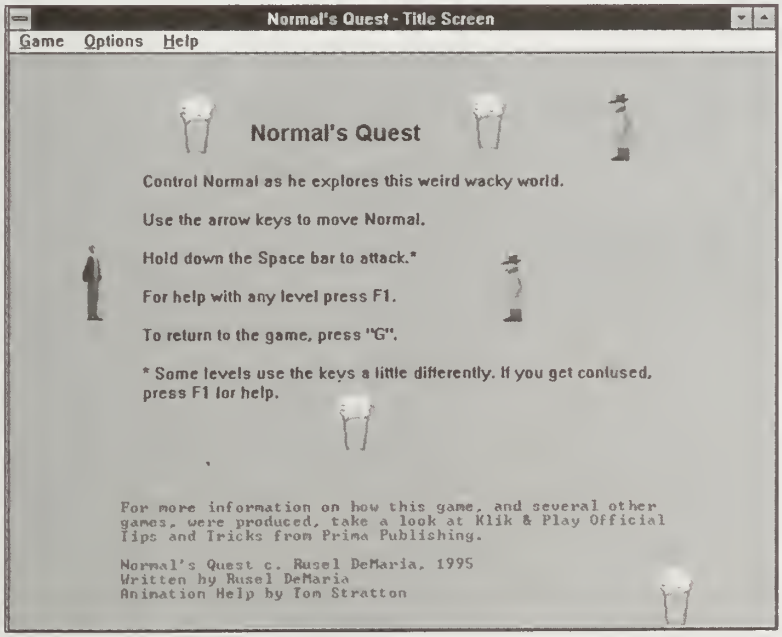
Nineteen: Normal's Quest (Frames 13 & 14)

The Title Screen & the Help Screen

Frame 13 is the title screen of Normal's Quest. I decided to use it unconventionally by placing it below Frame 1 where the player would start the game. The big arrow on Frame 1 points down to this frame. To avoid making Normal's Quest any bigger, I didn't add any graphics to the title frame, though that would have been a nice touch. Instead, I placed all the player character objects on the screen in a nonsensical arrangement. When the player pressed the direction keys, they all move. Instructions on the screen tell the player how to get back into the game.

Frame 14 is the help screen. This could have been more elaborate, with specific hints for each puzzle and different frames for different levels of hints, etc. However, this help system is somewhat clever and works adequately. Normal Guy shoots the flashlight next to the Frame he wants a clue for. Then the specific clue is displayed. Shooting again hits the Text object (which is taken from the Buttons library) which resets all the flashlights and frame titles.

Frame 13: The Title Screen



Active Objects

The only active objects in the game are the four player objects, Normal Guy, Gangster, Pint of Suds, and Pint of Suds 2. There are two text objects and a quick backdrop in turquoise. The picture pretty much sums it up except for one counter object off screen.

Event List

1. Upon pressing "G"
    Normal Guy: Set alterable value A to 1

2. Upon pressing F1
    GSC: Jump to frame number 14
    Player 1: Add 10 to Number of Lives

Event 2: I added 10 to Number of Lives because, when the player returns from the Help system (Frame 14), I want the game to resume at Level 1.

3. Normal Guy leaves the play area
    Normal Guy: Stop

4. Alterable value A of Normal Guy = 1
+ Every 01'00"
    Counter 1: Add 1 to counter

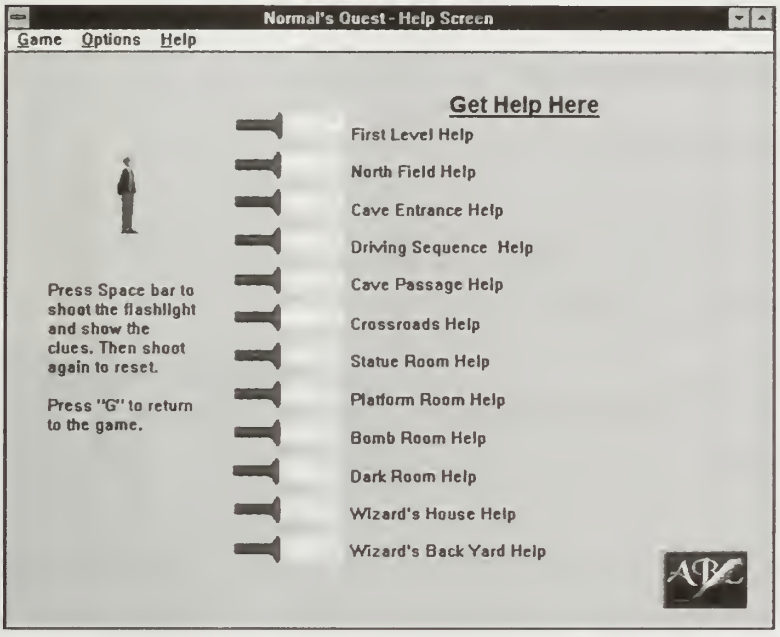
5. Counter 1 = 1
    Player 2: Set number of lives to lives ("Player 2") / 10 * 10 + 3
    Returning to Game: Flash paragraph at (202, 328) for 00'20"

6. Counter 1 = 2
+ Number of Lives of Player 4 <= 100
    GSC: Jump to frame number 1
    Player 3: Set Score to Score ("Player 3") / 10 * 10 + 1
    Player 4: Set Number of Lives to 101

Events 6 & 7: I put in a contingency event just in case the player manages to get to this frame before some of the variables are set at the beginning of the game. This shouldn't be possible now, but I just wanted to be sure.

7. Counter 1 = 2
+ Number of Lives of Player 4 > 100
    GSC: Jump to frame number 1

Frame 14: The Help Screen



Active Objects

In addition to the four player character objects (same as in every frame), the Sword, and Glooper, there are 12 Flashlight objects (Flashlight plus Flashlights 2-12) and one button object called Text, which is from the Buttons library.

Backdrop Objects

There's a custom-made quick backdrop in orange. It's a mosaic drawn as shown in the picture.

Game Objects

There are several text objects, each with two paragraphs. The first paragraph shows the name of the particular frame the help is for. The second paragraph shows the help text for that frame. See the pictures for details of the text.

Event List

1. Start of Level

Text 1: Display paragraph 1 at (287, 60)
Text 2: Display paragraph 1 at (287, 91)
Text 3: Display paragraph 1 at (287, 123)
Text 4: Display paragraph 1 at (287, 154)
Text 5: Display paragraph 1 at (287, 185)
Text 6: Display paragraph 1 at (287, 218)
Text 7: Display paragraph 1 at (287, 249)
Text 8: Display paragraph 1 at (287, 281)
Text 9: Display paragraph 1 at (287, 313)
Text 10: Display paragraph 1 at (287, 345)
Text 11: Display paragraph 1 at (287, 376)
Text 12: Display paragraph 1 at (287, 407)
Text: Set alterable value A to 0
Set alterable value C to lives ("Player 1")
Gangster: Set position at (948, 371)
Pint of Suds: Set position at (948, 371)
Pint of Suds 2: Set position at (948, 371)

Event 1: At the start of the level all the text paragraphs 1 are displayed in their appropriate positions next to the Flashlights.

2. Normal Guy leaves the play area
Normal Guy: Stop

3. Normal Guy collides with the background
Normal Guy: Stop

4. Collision between Glooper and Text
Glooper: Destroy
Text: Set alterable value A to 2

Event 4: The collision between Glooper and Text is used to reset the original paragraphs.

5. Collision between Normal Guy and Text
Normal Guy: Bounce
Text: Set alterable value A to 0
Flashlights 1-12: Reappear

6. Upon pressing "Space bar"
+ Alterable value A of Text = 0
Sound: Play sample arrow1
Normal Guy: Change animation sequence to Attack
Change speed of animation to 10
Sword: Set position at (0, 0) from Normal Guy
Set direction to Dir "Normal Guy"
Shoot Glooper at speed 100

Events 6 & 7: Pressing the Space bar causes Normal Guy to shoot a Glooper. If value A of Text is zero, then the Glooper shoots normally. If value A of Text is 1, then the Glooper is shot toward the Text object. (Event 47 makes sure Glooper connects.) As you've already seen in Event 4, when Glooper hits Text, then this changes value A of Text to 2 (see Events 9 & 10).

7. Upon pressing "Space bar"
+ Alterable value A of Text = 1
Sound: Play sample arrow1
Normal Guy: Change animation sequence to Attack
Change speed of animation to 10
Sword: Set position at (0, 0) from Normal Guy
Set direction to Dir "Normal Guy"
Shoot Glooper at speed 100 toward (0, 0) from Text

8. Normal Guy animation sequence Attack is over
Normal Guy: Change animation sequence to Stopped
Sword: Set position at (-100, 200)

9. Alterable value A of Text = 2
Text 1-12: Erase
Text: Set alterable value A to 3
Flashlights 1-12: Set alterable value A to 0

Events 9 & 10: When value A of Text equals 2, the all the Flashlights' values A are set to 0 and Text value A is set to 3. Also, any text currently displayed from the Text objects 1-12 is erased. In Event 10, the original paragraphs are set in their appropriate places again, the Flashlights are made visible again, and Text value A is reset to 0.

10. Alterable value A of Text = 3

Text 1: Display paragraph 1 at (287, 60)
Text 2: Display paragraph 1 at (287, 91)
Text 3: Display paragraph 1 at (287, 123)
Text 4: Display paragraph 1 at (287, 154)
Text 5: Display paragraph 1 at (287, 185)
Text 6: Display paragraph 1 at (287, 218)
Text 7: Display paragraph 1 at (287, 249)
Text 8: Display paragraph 1 at (287, 281)
Text 9: Display paragraph 1 at (287, 313)
Text 10: Display paragraph 1 at (287, 345)
Text 11: Display paragraph 1 at (287, 376)
Text 12: Display paragraph 1 at (287, 407)
Text: Set alterable value A to 0
Flashlights 1-12: Reappear

11. Collision between Glooper and Flashlight

+ Alterable value A of Text = 0
+ Alterable value A of Flashlight = 0

Text 1-12: Erase
Glooper: Destroy
Text: Set alterable value A to 1
Flashlight: Set alterable value A to 1
Flashlights 2-12: Make invisible

Events 11-22 are identical. The only differences are that the events are created one for each Flashlight, and the Flashlight that is hit has its alterable value A set to 1. All other Flashlights are made invisible and all hint text is erased. Event 12 is reprinted below as an example.

12. Collision between Glooper and Flashlight 2

+ Alterable value A of Text = 0
+ Alterable value A of Flashlight 2 = 0

Text 1-12: Erase
Glooper: Destroy
Text: Set alterable value A to 1
Flashlight 2: Set alterable value A to 1
Flashlights 1, 3-12: Make invisible

23. Alterable value A of Flashlight = 1

Text 1: Display paragraph 2 at (312, 56)

Events 23-34: These events are identical, one for each flashlight and associated text object, i.e. Flashlight 2 and Text 2, Flashlight 3 and Text 3, etc. This displays the specific hint text (paragraph 2) associated with the Flashlight selected.

35. Upon pressing "G"

+ Value C("Text") / 10 = 1
+ Number of lives of Player 4 > 100

GSC: Jump to frame number 1
Set Number of Lives to Lives ("Player 1") mod 10

36. Upon pressing "G"

+ Value C("Text") / 10 = 1
+ Number of lives of Player 4 <= 100

GSC: Jump to frame number 1
Set Number of Lives to lives ("Player 1") mod 10
Player 3: Set Score to 11
Player 4: Set Number of Lives to 101

Events 35-47: Events 35 & 36 cover the possibility that the player might hit F1 right at the beginning of the game, bypassing some of the events that set important variables. Event 36 sets those variables
correctly so that when the player returns to Frame 1, everything operates correctly. This is a good way to bypass the Gymnasia characters. The rest of these events are identical, except that the value
[C of Text/10] increments by one each event and the frame number the game jumps to is the same as the result of that calculation. See Event 38 below for another example.

38. Upon pressing "G"
+ Value C("Text") / 10 = 2

GSC: Jump to frame number 2
Set Number of Lives to lives ("Player 1") mod 10

48. Alterable value A of Text = 1
+ Every 00'01"

Glooper: Look at (0, 0) from Text

Event 48: This event makes sure that Glooper doesn't miss the Text object when it's shot at it. By constantly refreshing its aim, we make sure the Glooper can't miss.

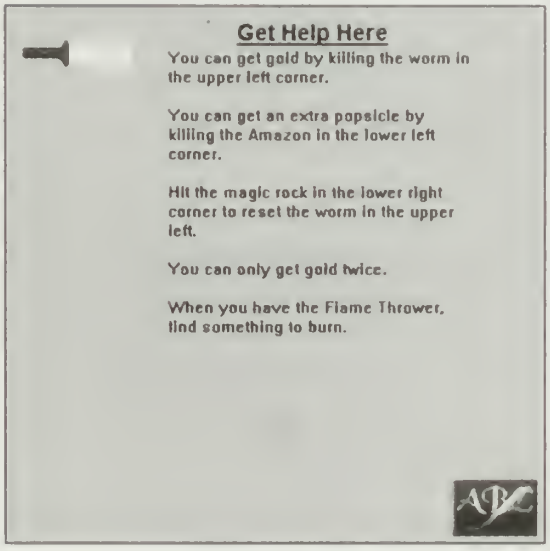
49. X position of Normal Guy >= 155

Normal Guy: Stop

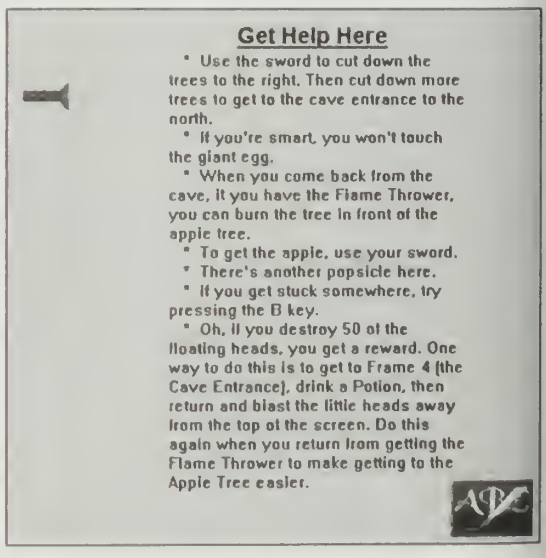
Events 49 & 50: These events are just for fun. Event 49 makes it seem as if Normal Guy is walking through molasses. Event 50 sets him back out of the mire. Basically, these events keep Normal Guy to the left of the Flashlights.

50. X position of Normal Guy >= 180

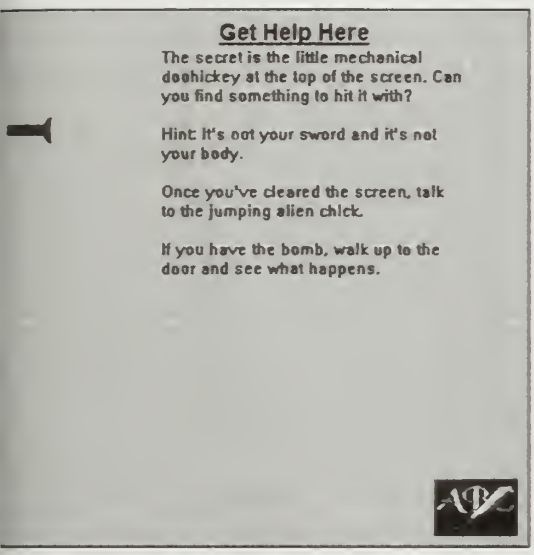
Normal Guy: Set position at (-50, 0) from Normal Guy



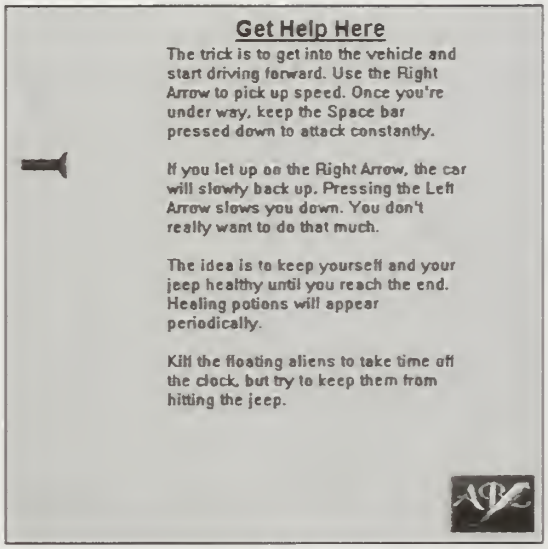
Level 1 Help



Level 2 Help



Level 3 Help

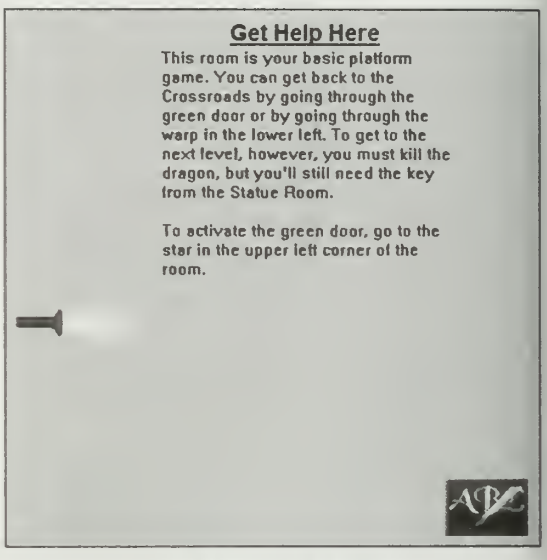


Level 4 Help

Level 5 Help

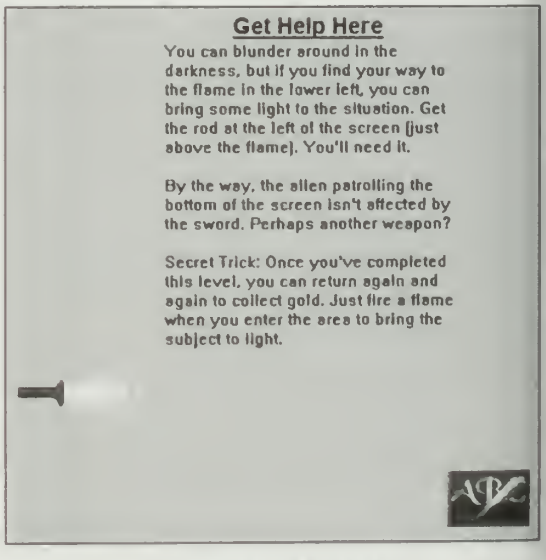
Level 6 Help

Level 7 Help

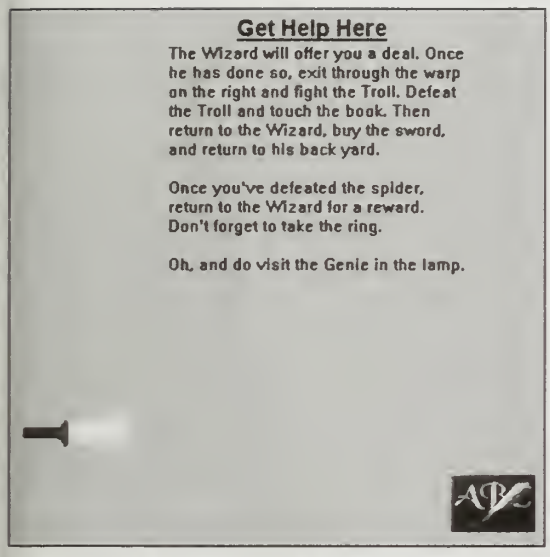


Level 8 Help

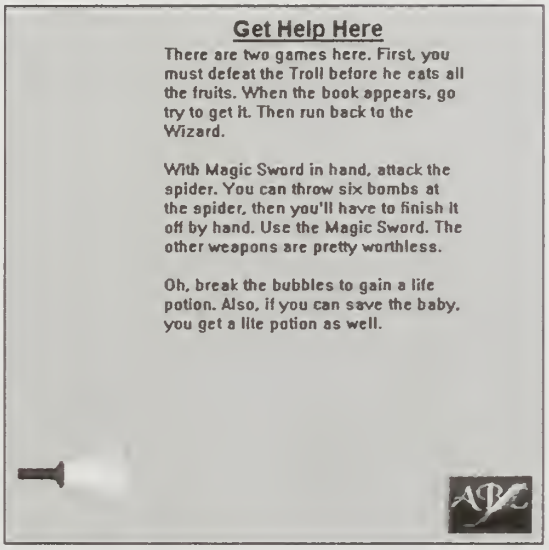
Level 9 Help



Level 10 Help



Level 11 Help



Level 12 Help

Final Word

There are lots of ways to improve the games described in this book. If you explore the techniques suggested here, you'll find other methods, other useful tricks, and so forth. You may also find ways to "tune" these or other games to make them more interesting, more difficult, more challenging, or just mo' bettah, as they say in Hawaii.

Finding These Games

All of the games discussed in this book are available through America Online™ and CompuServe™. On AOL, go to keyword "Maxis" to get to the Maxis forum, and enter "The Trading Post" to get to the Klik & Play folder. On CompuServe, go to the "Gamepub" forum and open the Maxis library area.

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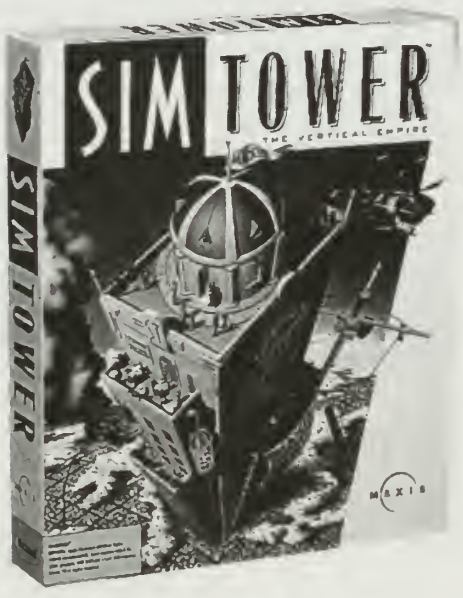

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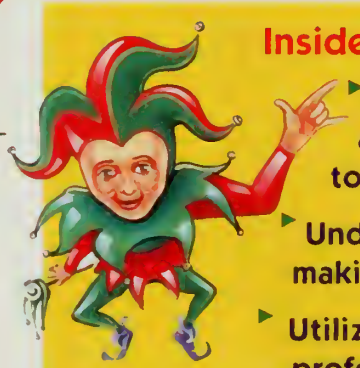

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