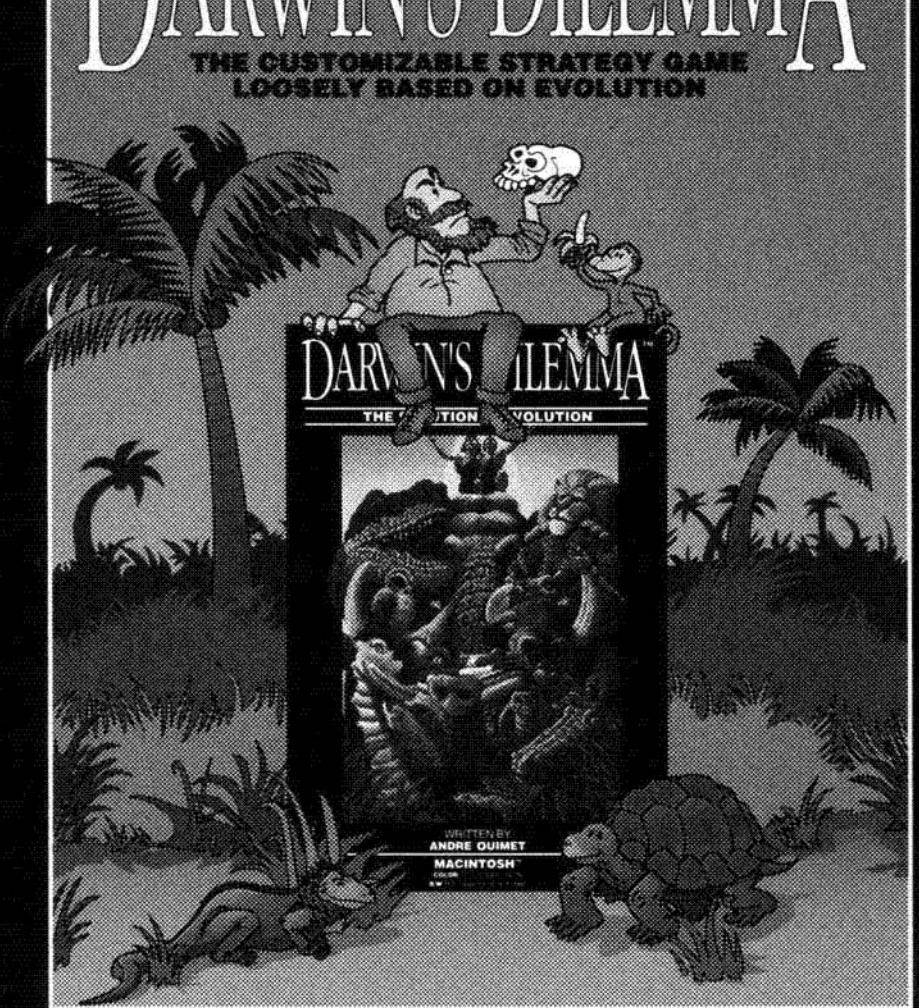


DARWIN'S DILEMMA™

THE CUSTOMIZABLE STRATEGY GAME
LOOSELY BASED ON EVOLUTION



DARWIN'S DILEMMA™
THE EVOLUTION STRATEGY GAME

WRITTEN BY
ANDRE OUIMET

MACINTOSH™
COLOR
PC

WRITTEN BY

ANDRE OUIMET
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INLINE DESIGN



DARWIN'S DILEMMA

A Game By
André Ouimet
and
Nicholas Schlott

INLINE DESIGN



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If You Don't Read Manuals...

Start playing! If you don't understand something, refer to the built-in help system. To gain insight into possible strategies, read the Strategy Hints section.

Minimum Requirements

Darwin's Dilemma 2.0 will run on all Macs from the Plus on up including PowerBooks. It is fully System 7.0 compatible. You do not need a hard drive to run Darwin's Dilemma. If you do have a hard drive, installing Darwin's Dilemma is easy: simply drag the application onto your hard drive. Darwin's Dilemma is not copy-protected.

Darwin's Dilemma contains lots of great sounds. To hear them, you need System version 6.0.1 or higher. If you are using an earlier version of the System software, you will not hear any sound as you play.

Getting Started

Darwin's Dilemma 2.0 includes the original game, or Standard World, plus an option to create your own games using the built-in editors. You can create your own icons and levels thus an entirely different game, or as we call it, World.

When you launch the game you will find the opening dialog.



If you simply wish to play the original game press the *Play* button. If you want to load another World that you have created and saved to disk, press *World*.

Or, you can go right into the level and icon editors by pressing the *Editor* button. We supply you with a Sample World to get you started.

Overview

Darwin's Dilemma begins with a variety of icons, representing various life forms, randomly distributed on a board. You must move these icons horizontally and vertically, forcing them to collide with other icons. When two identical icons meet they merge into one. If you merge the correct number of identical icons together, they evolve into a new icon. Evolve enough icons on one level and the next level appears with a new assortment of icons. You gain points for merging, evolving, and moving to the next level.

Darwin's Dilemma is a strategy game. Successful play depends on planning ahead! Luck also plays a significant role in the difficulty of each level.

Controlling the Icons

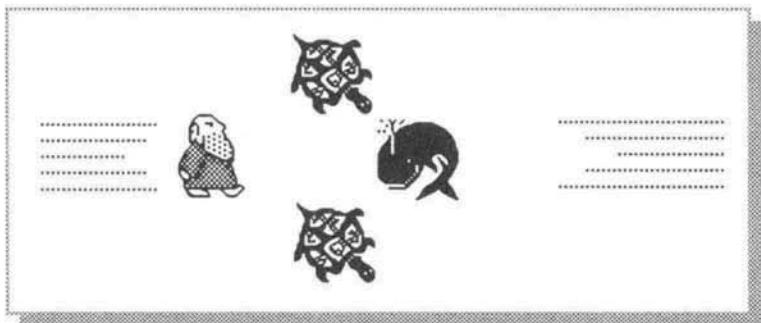
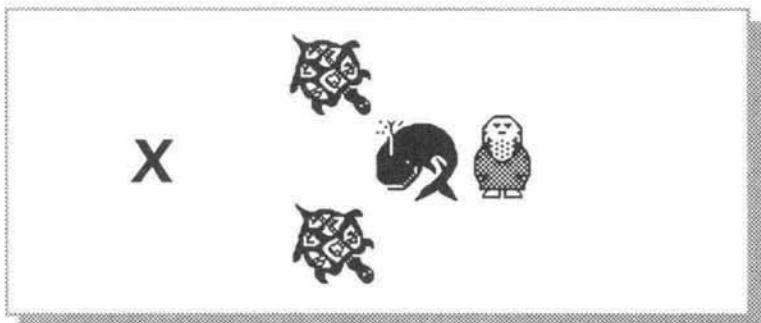
In this section, we will explain the basic mechanics of moving the life form icons using the control piece, which we call Darwin. To move an icon, you must place Darwin on the correct side of the icon and then use him to kick the icon.

Moving Darwin

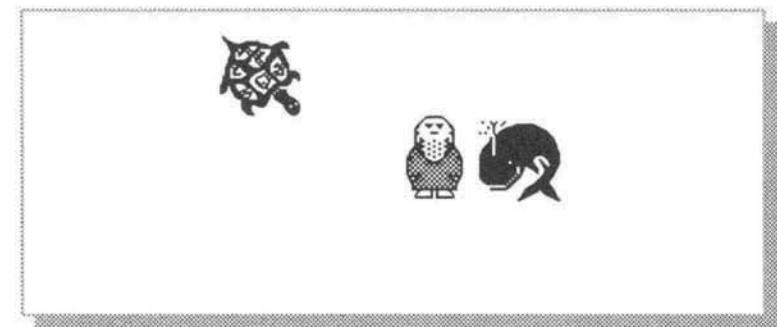
The first step in moving a life form icon is to position Darwin, the control piece. Darwin is the only icon that you can maneuver directly. He can move anywhere on the board that is not totally blocked by other icons. You move Darwin with the mouse.



Click on an empty spot; Darwin will move there. He also “wraps around”; he will slide off one side of the board and reappear on the other. In the illustration below, for example, if you click on the spot marked by the X, Darwin will move off the right end of the board and reappear on the left.



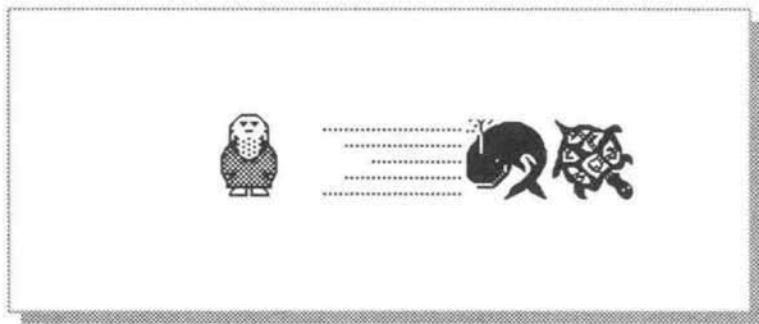
Darwin always kicks an icon away from himself, so to move an icon to the right, for example, you must put Darwin on the left side of the icon. In the illustration below, Darwin is poised to kick the whale to the right.



Kicking Icons

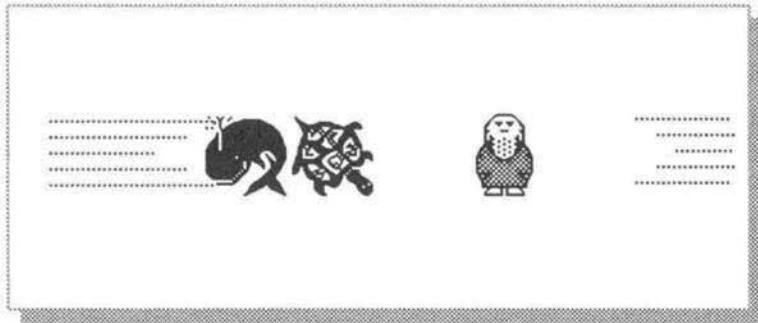
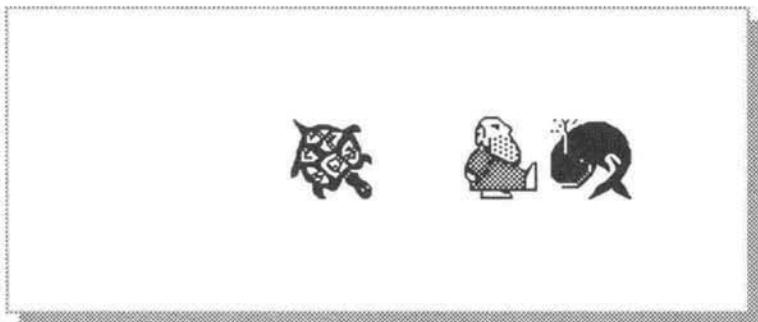
Now that Darwin is positioned next to an icon, all you need to do is kick the icon. The icon will then be kicked in a straight line (up, down, left, or right) away from Darwin.

Place Darwin next to the life-form icon that you want to move. Click on the icon. The icon will be kicked away from Darwin.



Wrapping Around the Board

You have already seen that Darwin wraps around the board. Icons also wrap around. For example, in the diagram below Darwin is in position to kick the whale to the right. When kicked, the whale will move past the edge of the board on the right, reappear on the left, and continue on its journey.

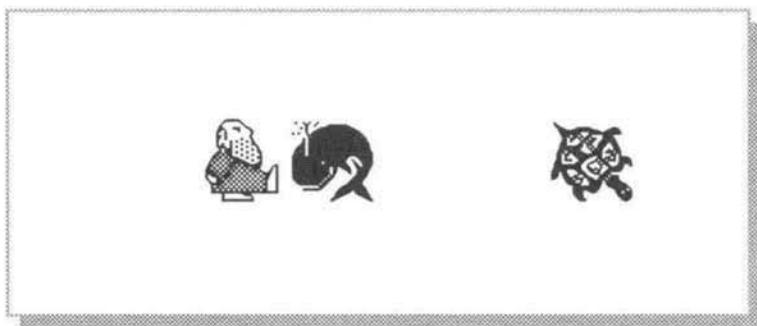


Collisions, Merging & Evolving

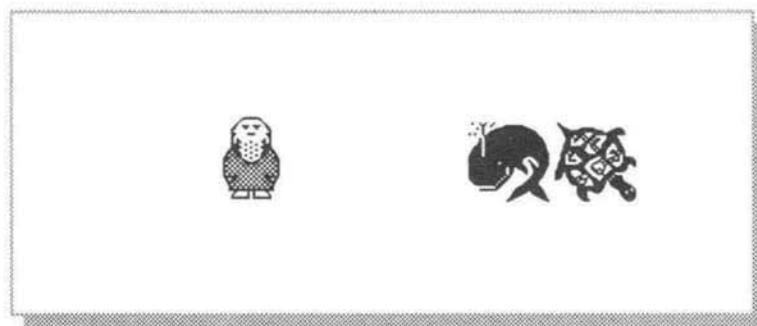
When you kick an icon it moves in a straight line until it hits something else. Planning this collision is the essence of playing Darwin's Dilemma. There are three different types of collisions you will encounter: those involving two identical icons, two dissimilar icons, and an icon and Darwin.

Dissimilar Icons

When an icon hits a different type of icon, it stops. If you kick the whale icon to the right...

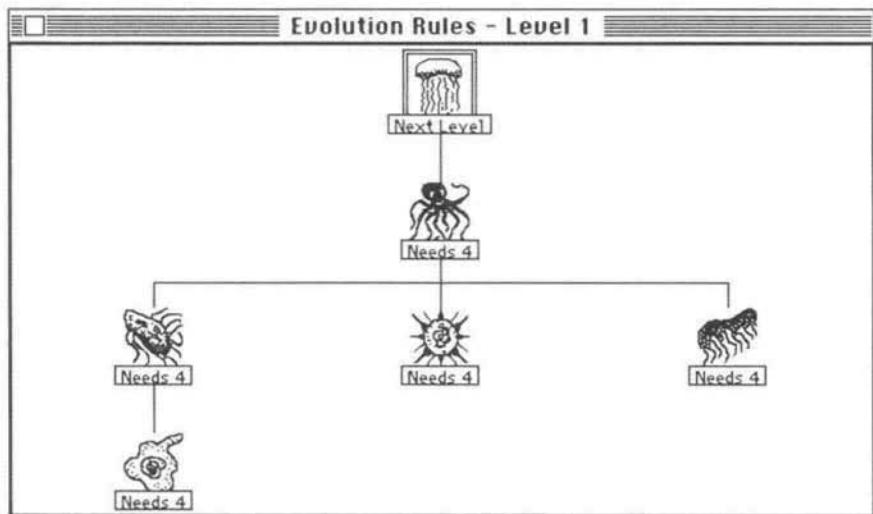


...it stops when it hits the turtle.



Evolution Help Screen

Under the Help menu at each level you will find the Evolution Help Screen. This is a chart of the necessary evolutions you must make to complete the level.



In the example above, the icon at the top is the goal. Each of the other icons shows how many of that icon you must merge together to evolve into the icon above it. You will find it helpful to refer to this chart when you start a new level. If you have a large screen, you can move this window so that you can use it for reference.

Swapping

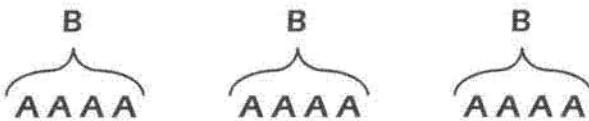
If you are stuck, Darwin's Dilemma allows you to move an icon to any spot on the board by using a built-in cheating technique known as the Swap. Simply place Darwin where you would like the icon to be and double-click the icon. The icon and Darwin will switch places. Unfortunately, you are allowed only a limited number of Swaps at each level, and each Swap will cost you 40 points. To undo a Swap, simply select *Undo* from the *Edit* menu.

At the beginning of the game (Level 1) you are given eight Swaps. You earn two more with every level you complete. Remember that you lose 40 points when you Swap.

You can learn more about using Swaps wisely in the Strategy Hints section.

Multiplicity

Let's say that one level of Darwin's Dilemma contains 12 A icons, which must be merged to make three B icons. So, exactly four A icons are needed to make one B icon.



Also assume that you have merged three As into one A icon (value of three) and two A icons into one (value of two), as seen below.

A_{3/4} **A_{2/4}**

(The "3/4" means that three icons have been merged together and that four are needed to evolve). If you were to merge these two icons together, they will evolve into a B icon, but you will have used five icons to evolve instead of four. That extra A icon was needed to merge with three others, so you would find yourself one icon short, and unable to complete the level.

To avoid such problems of multiplicity, study the Evolution Help Screen and compare it to the number of icons on the board. And, as always, proceed with care.

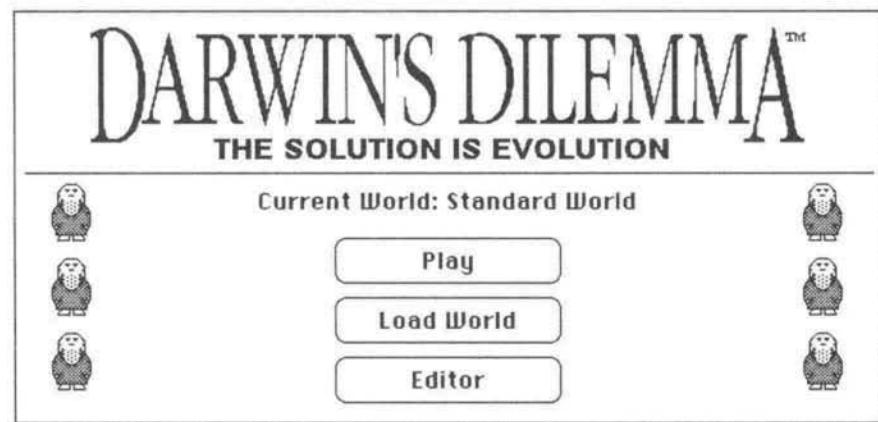
The Menus



New Game, *Open*, *Save*, *Save As*, and *Quit* (and their standard Command key equivalents) work in Darwin's Dilemma exactly as they do in every other Macintosh program. Since Darwin's Dilemma saves games in a separate file, you can have as many saved games as you want at one time (but you may not have more than one game open at once.)

Note that the menus are different when you are in the editor.

Selecting *End Game* ends the current game and brings you back to the opening dialog allowing you to go to the editor or simply load a different world.



Go to Editor brings up a dialog box allowing you to select the world you wish to edit. The Standard World is fixed and cannot be edited. This is so that you can fairly compare high scores with other players.

Edit**Undo****⌘Z****Cut****⌘} }****Copy****⌘C****Paste****⌘V****Clear**

Selecting the *Undo* item (Command-Z) removes the last move you made. Darwin's Dilemma allows you to continue to undo moves, up to the 120 last moves you made at each level. (You cannot return to a previous level, however.)

You will not need *Cut*, *Copy*, *Paste*, and *Clear* to play Darwin's Dilemma. However, we have provided them for you to use with your Desk Accessories.

Game

<input checked="" type="checkbox"/> Sounds	⌘B
High Scores	⌘K
Hide!	⌘H

Darwin's Dilemma contains a lot of sounds. If you (or someone in the room with you) would prefer not to hear them, simply make sure that *Sounds* is not checked.

High Scores brings up the high score screen.

Hide! puts your Mac into screen saver mode. This is handy if you are playing at work and you have created a world where your boss evolves into pond scum.

Help

General	⌘?
Evolution	⌘E
Scoring	⌘J

There are three different topics under the *Help* menu: *General*, *Evolution*, and *Scoring*.

If you select the first, *General*, you will receive information about the basic operation of the game.

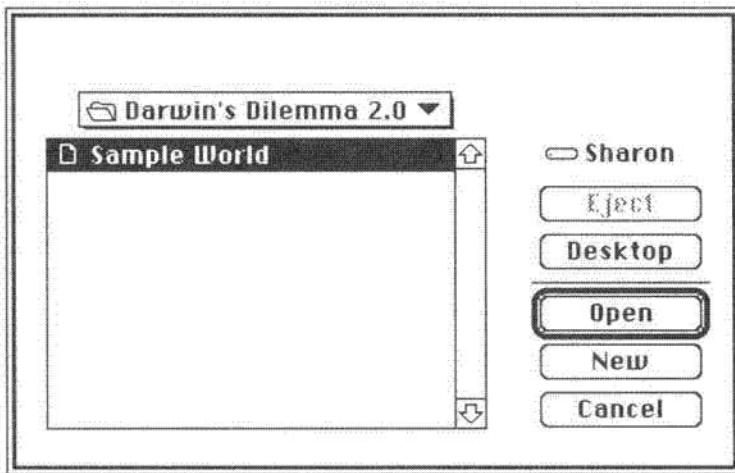
Selecting *Evolution* will bring up the Evolution Help Screen, explained on page 15.

The *Scoring* screen lists the points lost and gained for each move.

The Level and Icon Editors

Darwin's Dilemma 2.0 allows you total control! Say, for example, you would like a world where your boss evolves into pond scum... it's possible with the Darwin's 2.0 editor!

To enter the editor from the opening screen, click the *Editor* button. From inside the game, choose *Go to Editor* from the *File* menu, or use Command-G. A dialog box appears. Choose the world that you would like to modify.

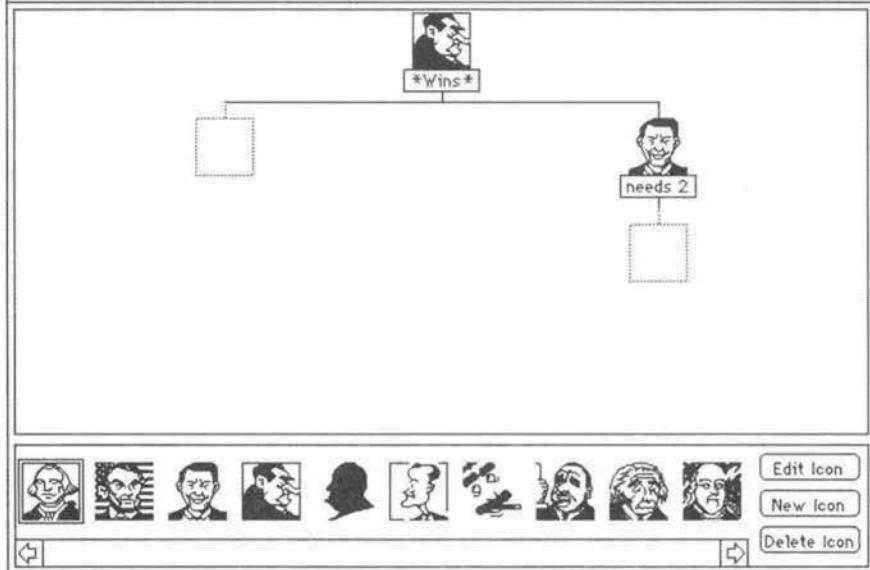


Note: You cannot edit the Standard World. This is so that you can compare scores with your friends and be certain that you are playing the same game. However, we have included a Sample World on the disk to get you started.

The Level Editor

The Window title shows the name of the World that you are editing and the level that you are editing. For example "Sample World - Level 1" shows that you are editing level 1 of the world called "Sample World."

A large part of the window is taken up by a tree chart that shows the evolution rules for that level. Evolution moves upward, that is, the lower icons evolve into the icons above them.



Level

New Level 
Previous Level 

New Level
Delete Level...
Move Level...
Check Level...

New Top Icon

The *Level* menu in the editor is how you control the different features of the level editor.

New Level creates the next level.

Delete Level... allows you to delete the current level.

Move Level... allows you to move the current level.

Check Level... is a safety feature. If the level is not solvable you will be warned and given a chance to fix it.

New Top Icon lets you add another branch to the current level.



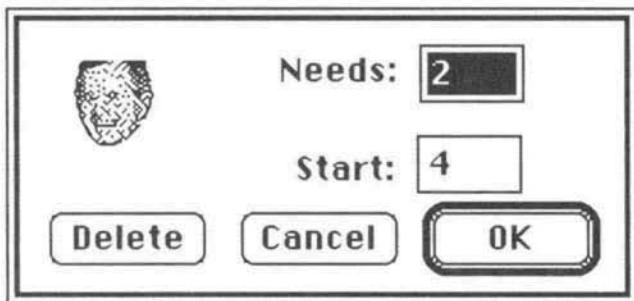
The *File* menu changes when you are in the editor. *Save Changes* will save any changes you have made to the current World.

Import Icons... allows you to import icons from other applications and is discussed further on page 22.

Exit Editor takes you back to the game.

Changing the number of icons

Most of the icons are marked with the number of icons that need to be merged to form the next highest life form. For example "needs 2" indicates that two of this icon must be merged to form the icon immediately above it. At the top of each level, you will see an icon marked "Next Level." This means that when this icon is formed, the player moves to the next level. The icon that appears at the top of the final level is marked "*Wins*." This is the final icon of the game.



It is easy to change the number of icons that must be merged to create the next icon. Click on any icon that is labeled "needs." A dialog box appears. You can enter new numbers for Needs and Start. Needs is the number of icons that must be merged to create the next icon in the evolutionary tree. Start is the number of icons that appear when the level opens.

Changing the Evolution order

It is also easy to change the evolution order. Click on any icon at the bottom of the screen. Drag this icon over the icon you would like to replace. You will see the icon change to show your modifications. You can also add to the evolution tree by dragging an icon from the bottom of the screen to one of the empty spots on the tree (indicated by an empty dotted square.) A dialog box will appear. If this new icon is a bottom level icon (that is, one that is not created by the merging of any lower icons) be sure that you enter a number in the Start field. Otherwise, the new icon will not appear in the game.

What if you don't have all the icons you need to create the world you envision? You can use the icon editor to duplicate any of the available icons by copying and pasting it into a new icon window where it can be modified. You can create a new icon from scratch or import icons from Darwin's worlds or other applications.

Editing Icons

At the bottom of the screen, to the right of the row of icons, you will see three buttons: *Edit Icon*, *New Icon*, *Delete Icon*.

Edit Icon

- Click on any icon at the bottom of the screen.
- Click on the *Edit Icon* button
- The Icon Editor appears
- Note: Double-clicking on any icon also brings up the icon editor.

New Icon

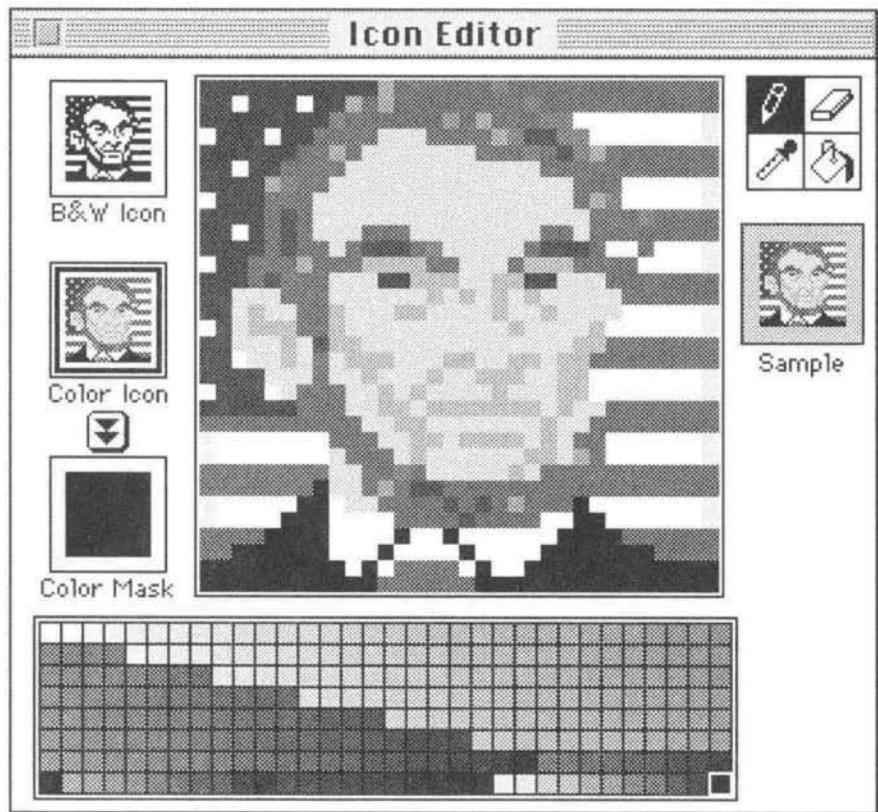
- The icon editor appears allowing you to create your own from scratch.

Delete Icon

- Click on the icon that you would like to delete at the bottom of the screen.
- Click on the *Delete Icon* button.
- A dialog box will appear asking if you really want to delete the icon.

The Icon Editor

If you have edited icons in ResEdit or another editor, the Darwin's Dilemma Icon Editor should look very familiar. The center of the window contains an enlarged ("Fat Bits") version of the icon that you are editing. On the right you will see four paint tools: a pencil tool, an eraser, an eye dropper, and a paint bucket.



The Paint Tools

The paint tools work just as the same tools in any Macintosh paint program. Click on a tool to choose it. Move your cursor over the large picture of the icon in the center of the Editor. You will notice that the cursor changes to show which tool you are using, so that if you are using the pencil tool, the cursor will look like a pencil. Now click somewhere in the picture.

The pencil tool will draw one pixel at a time. If you are working in color, click to choose a color from the palette at the bottom of the window.

The eraser tool erases (turns to white) any part of the picture that it touches when clicked or dragged.

If you click *the eyedropper tool* on the icon, it will make the color it touches the active color.

Use *the paint bucket tool* to dump a color (or black, in black and white) onto a large section of the icon.

If you make a mistake while you are using the paint tools, simply select *Undo* from the *Edit* menu, or type Command-Z.

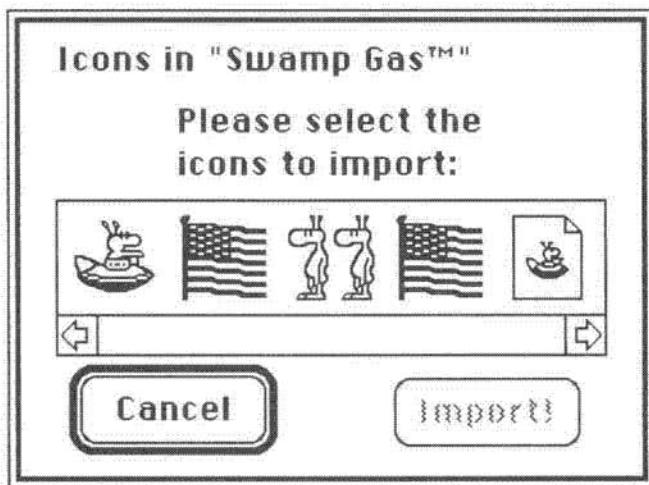
Below the paint tools, you will see the icon you are editing in its actual size.

The Mask

On the left you will see the black and white version of the icon, the color version of the icon, and the icon's mask. When Darwin's Dilemma draws an icon on the screen, it first uses the icon's mask to erase part of the background, and then draws the icon on top of the mask. The mask is generated automatically, but you can modify it with the paint tools.

Importing Icons

If you have icons stored in a HyperCard stack, for instance, or in another Darwin's World, you can import them into the world you are currently modifying. Choose *Import Icons...* from the *File* menu. A dialog box will appear. Open the file that contains the icons you would like to import. A new dialog box will appear that contains a row of icons. Select the icons you would like to import. If you would like to choose more than one, simply hold down the Shift key. You will then be able to choose as many as you like.



When you have chosen all the icons that you would like to import, click the *Import!* button. In a moment, you'll see these new icons at the bottom of the level editor.

Leaving the Editor

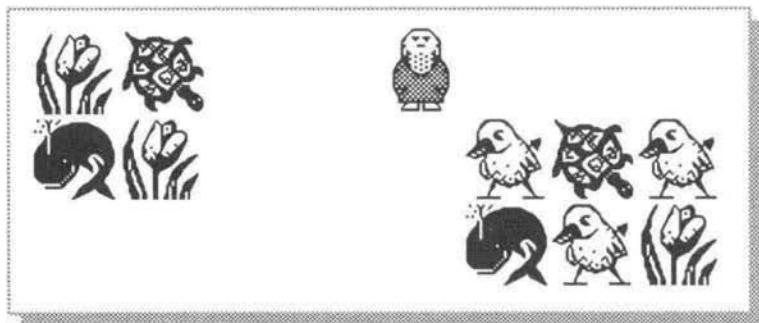
Select *Exit Editor* from the *File* menu, or type Command-Q to return to the game.

Strategy Hints

PLAN AHEAD! This is the most important strategy of Darwin's Dilemma. If you think ahead, you will avoid two major problems: clusters and misused Swaps.

Avoid Clusters

A cluster is a group of icons stuck together so that no icon in the group can be pushed. Two typical clusters, one with four icons and one with six, are seen in the illustration below.



Since it is impossible to push any of the clustered icons, you must use at least one Swap to break up the clusters.

Use Swaps Wisely

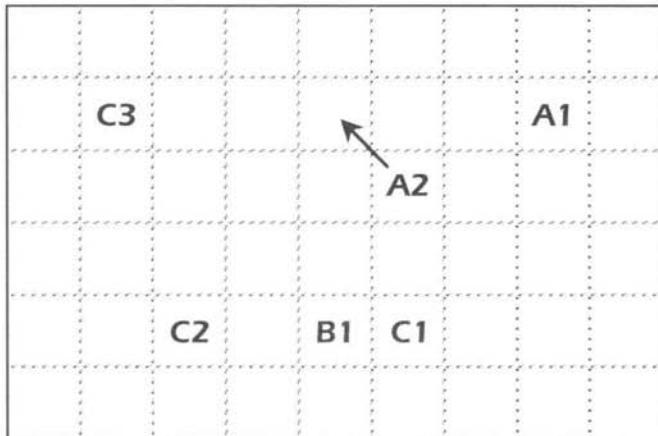
Sometimes you will need to Swap once or twice to complete a level. If you find that you have used up all your Swaps and you still haven't completed the level, you probably did not create an overall plan of action when you started the level. If you study each level carefully before you move you can avoid overusing Swaps.

Strategy Example One: Using Swaps Wisely

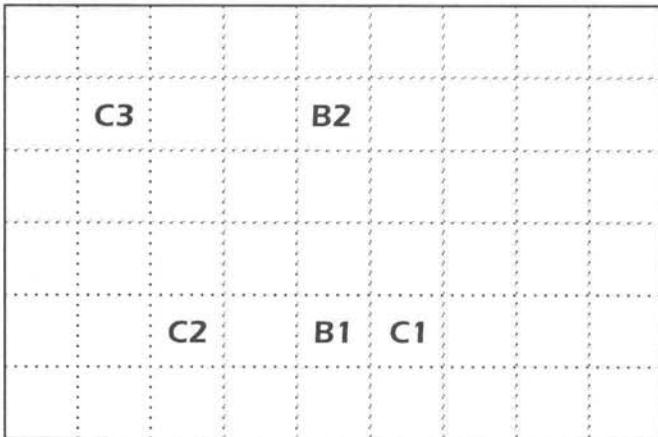
This section contains two possible solutions to a sample board configuration. The first solution demonstrates how to use one carefully chosen Swap where more than one might seem necessary. In the second solution, you will see that the same problem can be solved without using any Swaps at all.

The evolution rules for this example: two As merge and evolve into a B, two Bs make a C and four Cs evolve into the creature that takes you to the next level.

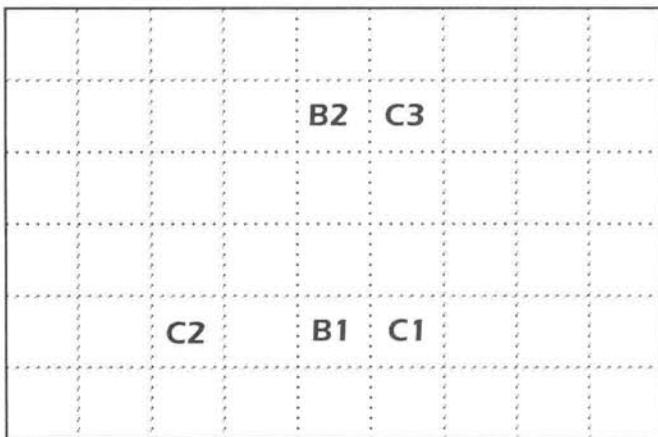
Solution One — A Single Swap



This is the initial board position for this problem. A smart move would be to Swap A2 one square up and to the left (as shown by the arrow.) This aligns A1 and A2 with each other, and with B1. Since A1 and A2, when merged, will evolve into a B, this is the beginning of a good plan.

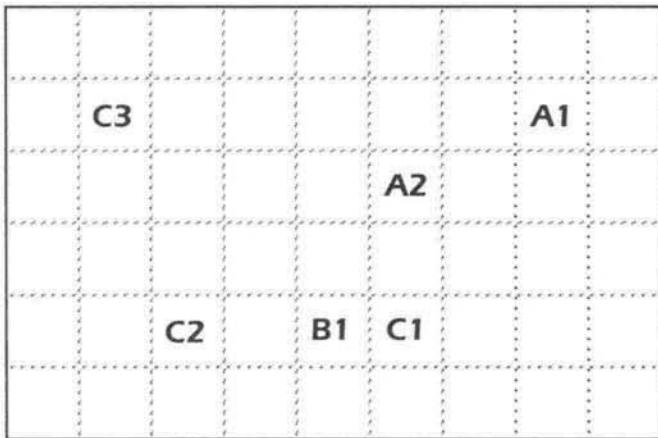


A1 has now been pushed left into A2, and the two icons have merged and evolved into B2. Since the two Bs are now in line, now take care of the Cs. C3 can be pushed left, and it will wrap around...

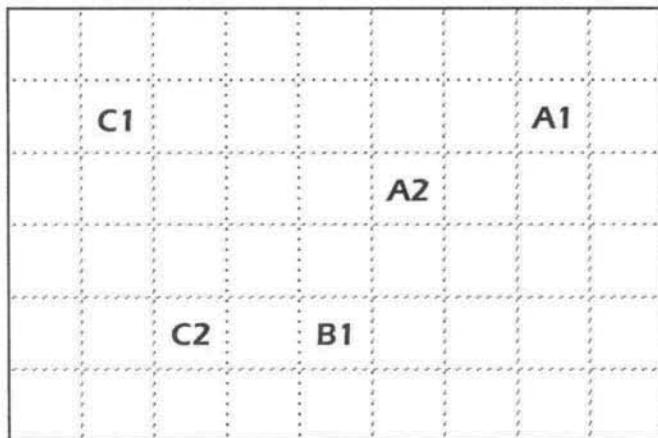


...and stop when it hits B2. All the Cs are now in line, either vertically or horizontally. From here it is simple to complete this level. Push C2 left and it will wrap around and merge with C1. Push B2 down to merge with B1 and it will evolve into C4. Push C4 right and C3 down, to complete the level.

Solution Two — No Swaps



Starting with the same initial board position as Solution #1 above, move C1 down, to wrap around and hit the top of A2, then left, to merge with C3. This maneuver clears the way for B1 to slide right.



Push B1 right, to hit C2 from the left, then up to stop below C1.

C1					A1
B1			A2		
	C2				

C1 and B1 now act as blocks so that A1 and A2 can be pushed left, where they will be in line with each other.

C1	A1				
B1	A2				
	C2				

Merge the As by pushing A1 down. They evolve into B2. C2 is then pushed down so that it wraps around the top and hits B2.

From this point it is simple to complete the level, and with the knowledge that not a single Swap was wasted!

Strategy Example Two: Breaking Up Clusters

Breaking up clusters requires judicious use of Swaps. If you find a cluster on the board, don't panic! One carefully planned Swap may be all that you need.

For this example, let us assume that the As evolve into Bs.

							A2	Y3
Z3	Y4					Z1	A1	
Y2	Z4					Y1	Z2	
X	B					o		

On the initial board position no icon can be moved with Darwin, so you must Swap. There are (roughly) 336 different Swapping moves you could make, but with experience you will know where to look. Consider Swapping A1 to the square marked by a dot.

Z3	Y4		Z1	Y3
Y2	Z4		Y1	Z2
X	B		A1	

Z1 moves right to merge with Z3. A2 slides up to merge with A1 and evolves into B2.

B2 is now in position to be combined with the other B. Push Z2 upwards then right so that it can merge with Z1. Then Y1 is pushed right to merge with Y2.

Having busted one cluster you are ready to attack the other.

Towards a Higher Score

There are many opportunities throughout Darwin's Dilemma to gain extra points. For those of you aiming for the highest possible score, here is an example. Note that the following example assumes that this level has spare icons, i.e. that there are more icons on the board than are necessary to complete the level. (A number of the levels in Darwin's Dilemma contain these extra icons.)

For this example, assume that As evolve into Bs.

Teleswap

The two Bs could be merged right away to get to the next level, and you would score 50 points. If you take care of the As first, however, you'll gain more points, even though you have to Swap! Here's how...

Action	Points
Swap (as shown) to align the As	-40
Merge the two As to evolve into a B	+30
Merge the new B with B (1/4)	+20
Merge the remaining Bs to the next level	+50
Final Score (instead of 50)	+60

This gives you an additional 10 points.