LogiQuads

A puzzle reaction game for the Commodore C64.

# Description

 

LogiQuads is a puzzle game where you must react quickly. Faces are divided into 4 parts. They have 4 colours. It’s your task to assemble the faces as good and as quick as possible. The available time frame gets shorter and shorter over time. If you are too slow or if you move the face’s part to a face where the place is already taken, you lose one life. The more fields of the same colour a face has, the more points you get.

# How to play

Use the keys WASD to move the tiles. As described above you should be quick enough. Moreover you should try to put tiles of the same colour together so you get more points. The points table is just below.

## Points

|  |  |  |
| --- | --- | --- |
| # fields of  same colour | Points | Accumulated |
| 1 | 10 | 10 |
| 2 | 30 | 40 |
| 3 | 90 | 130 |
| 4 | 270 | 400 |

# Emulator Usage

Run the program with vice's x64.exe. (You may use drag and drop.)

# Variables and Data Structures

|  |  |
| --- | --- |
| Variable | Usage |
| m | Base address for colours |
| d(260) | Array that holds the distance; it is indexed by the PETSCII value of the cursor direction keys |
| r(260) | Array that saves the number (1 to 4) of each face (rectangle) |
| g | Time/cycle limit that gets less every round so the game gets faster |
| p$ | Delete the time limit progress bar string |
| f | Face’s field (0..3) |
| a | Memory in colour RAM for the face’s field |
| c | Face’s colour (4..7) |
| t | Elapsed time / cycles |
| e | Current distance that the player selected pressing the cursor keys |
| k | Counter for time slices (you have 5x g slices); counts up to 5 |
| h | Count the number of fields with same colour which is used as power |
| p | Points total |
| r | Calculated face (rectangle) number from r(260) |
| a(r) | Save the number of correctly placed fields |
| l | Amount of lives (starts with 5) |

# Code

0f$=*"{reverse on}WW{down}{left}{left}JK"*:pO53280,0:pO53281,0:m=55499:l=5:dId(260):d(87)=‑120:d(83)=120

1d(65)=-3:d(68)=3:dIr(260):r(87)=1:r(83)=4:r(65)=2:r(68)=3:?*"{white}{clear}{reverse on}logi{reverse off}quads "*;

2g=20:p$=*"{return}{up}     {return}{up}"*:?*"{red}SSSSS{white}{return}{return}{right}{right}{right}"*f$*"{return}{down}"*f$*"{up}{right}{light gray}"*f$*"{white}{up}{right}"*f$*"{return}{down}{right}{right}{right}"*f$*"{return}"*

3f=int(rN(0)\*4):c=4+int(rN(0)\*4):a=m-f\*(f<2)-(f-2)\*(f>1)-40\*(f>1):pOa,c:t=0:e=0

4t=t+1:gEa$:e=d(aS(a$+*" "*)):on-(e<>0ORk=5)gO5:on-(t<g)gO4:k=k+1:t=0:?*"{cm +}"*;:gO4

5k=0:h=0:pOa,15:if(pE(a+e)aN15)>1tHl=l-1:pO1034+l,32:on-(l=0)gO9:?,p;p$;:gO3

6fOi=0to3:h=h-((pE(m+e+i+2\*(i>1)+40\*int(i/2))aN15)=c):nE:p=p+10\*3^h:?,p;p$;

7pOa+e,c:r=r(aS(a$)):a(r)=a(r)+1:g=g-0.2

8on-(a(r)<4)gO3:pOm+e,1:pOm+e+1,1:pOm+e+40,1:pOm+e+41,1:a(r)=0:gO3

9?*"{return}{down}{down}game over"*:input*"{down}try again"*;x$:ifx$=*"y"*tHrU

# Code description

Line 0 to 1 initialize the variables, clean the screen and write the game’s name on the screen.  
Line 2: Initializations and print faces.  
Line 3 prepares the first face part (random position and color) and displays it.  
Line 4 gets the users input. The time is limited by 5 times g cycles. Variable t counts the cycles.  
Line 5 checks if the field was taken. If yes, you lose a life. If you have no life left, you go to line 9.  
Line 6 counts parts of same colour and calculates points and shows the points.  
Line 7 moves the face part. Count’s the parts in the new face. Increase the speed a little.  
Line 8: If face not full (<4 parts) got to line 3. Clean a face (because full). Go on with the game in line 3.  
Line 9: Game over. Wanna play again?

# Line lengths



All lines bellow 80.

# side Notes

The working title of this game was LogiFaces.