# ПРИЛОЖЕНИЕ А

**БЛОК-СХЕМА**

Игровая область

Расстановка картинок

# 

# ПРИЛОЖЕНИЕ Б

**ЛИСТИНГ ПРОГРАММЫ**

unit dblpic\_;

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,

Dialogs, StdCtrls, jpeg, ExtCtrls, Menus;

type

TForm1 = class(TForm)

Timer1: TTimer;

MainMenu1: TMainMenu;

N1: TMenuItem;

N2: TMenuItem;

N3: TMenuItem;

N4: TMenuItem;

N5: TMenuItem;

procedure N5Click(Sender: TObject);

procedure N4Click(Sender: TObject);

procedure N3Click(Sender: TObject);

procedure FormCreate(Sender: TObject);

procedure FormPaint(Sender: TObject);

procedure FormMouseDown(Sender: TObject; Button: TMouseButton;

Shift: TShiftState; X, Y: Integer);

procedure Timer1Timer(Sender: TObject);

private

public

end;

col\_row = record

col: integer;

row: integer;

end;

const MAX\_SIZE = 32;

MAX\_H = 8;

MAX\_W = 8;

var

Form1: TForm1;

Pole: array [1..MAX\_H,1..MAX\_W] of integer;

Pictures: TBitmap;

n : integer;

count: integer;

open1: col\_row;

open2: col\_row;

W: integer;

H: integer;

WK: integer;

HK: integer;

implementation

{$R \*.dfm}

procedure Kletka(col,row: integer);

var

x,y: integer;

src, dst : Trect;

begin

x := (col-1)\*WK;

y := (row-1)\*HK;

if Pole[col,row] > 200 then

begin

Form1.Canvas.Brush.Color := clBtnFace;

Form1.Canvas.Pen.Color := clBtnFace;

Form1.Canvas.Font.Color := clBtnFace;

end;

if (Pole[col,row] > 100) and (Pole[col,row] < 200)

then

begin

src := Bounds((Pole[col,row]-100 -1 )\*WK,0,WK,HK);

dst := Bounds(x,y,HK-2,WK-2);

Form1.Canvas.CopyRect(dst,Pictures.Canvas,src);

Form1.Canvas.Pen.Color := clBlack;

Form1.Canvas.Font.Color := clBlack;

Form1.Canvas.Brush.Style := bsClear;

end;

if (Pole[col,row] > 0) and (Pole[col,row] < 100) then

begin

Form1.Canvas.Brush.Color := clBtnFace;

Form1.Canvas.Pen.Color := clBlack;

Form1.Canvas.Font.Color := clBtnFace;

end;

Form1.Canvas.Rectangle(x,y,x+WK-2,y+HK-2);

Form1.Canvas.Brush.Color := clBtnFace;

end;

procedure ShowPole;

var

row,col: integer;

begin

for row:=1 to H do

for col:=1 to W do

Kletka(row,col);

end;

Procedure NewGame;

var

k: integer;

r: integer;

buf: array[1..MAX\_SIZE] of integer;

i,j: integer;

begin

Randomize;

k := Trunc(H\*W/2);

for i:=1 to k do

buf[i] := 0;

for i:=1 to H do

for j:=1 to W do

begin

repeat

r := random (k) + 1;

until buf[r] < 2;

Pole[i,j] := r;

inc(buf[r]);

end;

n:=0;

ShowPole;

end;

procedure TForm1.FormCreate(Sender: TObject);

var

np: integer;

begin

Pictures := TBitmap.Create;

Pictures.LoadFromFile('pictures.bmp');

HK := Pictures.Height-1;

WK := HK;

np:= Round(Pictures.Width / WK);

if np <= 15

then H := 4

else H :=5;

W := Round(np\*2/H);

Form1.ClientHeight := H \* HK;

Form1.ClientWidth := W \* WK;

Form1.Timer1.Enabled := False;

Form1.Timer1.Interval := 200;

n := 0;

NewGame;

end;

procedure TForm1.FormPaint(Sender: TObject);

begin

ShowPole;

end;

procedure TForm1.FormMouseDown(Sender: TObject; Button: TMouseButton;

Shift: TShiftState; X, Y: Integer);

var

col\_: integer;

row\_: integer;

begin

col\_ := Trunc(X/WK) + 1;

row\_ := Trunc(Y/HK) + 1;

if Pole[col\_,row\_] > 200 then

exit;

if count = 0 then

begin

count := 1;

open1.col := col\_;

open1.row := row\_;

Pole[open1.col,open1.row] := Pole[open1.col,open1.row] + 100;

Kletka(open1.col,open1.row);

exit;

end;

if count = 1 then begin

open2.col := col\_;

open2.row := row\_;

if (open1.col = open2.col) and (open1.row = open2.row)

then exit

else begin

count := 2;

Pole[open2.col,open2.row] :=

Pole[open2.col,open2.row] + 100;

Kletka(open2.col,open2.row);

if Pole[open1.col,open1.row] = Pole[open2.col,open2.row] then

begin

n := n+1;

Form1.Timer1.Enabled := True;

end;

end;

exit;

end;

if count = 2 then

begin

Pole[open1.col,open1.row] := Pole[open1.col,open1.row] - 100;

Pole[open2.col,open2.row] := Pole[open2.col,open2.row] - 100;

Kletka(open1.col,open1.row);

Kletka(open2.col,open2.row);

open1.col := col\_;

open1.row := row\_;

count := 1;

Pole[open1.col,open1.row] := Pole[open1.col,open1.row] + 100;

Kletka(open1.col,open1.row);

end;

end;

procedure TForm1.Timer1Timer(Sender: TObject);

begin

Pole[open1.col,open1.row] := Pole[open1.col,open1.row] + 100;

Pole[open2.col,open2.row] := Pole[open2.col,open2.row] + 100;

count := 0;

Kletka(open2.col,open2.row);

Kletka(open1.col,open1.row);

Form1.Timer1.Enabled := False;

if n = Trunc(W\*H/2)

then

begin

Form1.Canvas.Font.Name := 'Times New Roman';

Form1.Canvas.Font.Size := 36;

Form1.Canvas.Font.Color := clBlack;

Form1.Canvas.TextOut(70,160,'Вы выиграли!');

end;

end;

procedure TForm1.N3Click(Sender: TObject);

begin

MessageBox(Handle,

PChar('Игра разработана учащимся УО "НГАЭК" ' + #13 + #13 + 'Группа 21ПО, Никанов И.В.'),

PChar('Информация'),

MB\_OK);

end;

procedure TForm1.N4Click(Sender: TObject);

begin

Canvas.Rectangle(0,0,ClientWidth,ClientHeight);

NewGame;

end;

procedure TForm1.N5Click(Sender: TObject);

begin

Close;

end;

end.