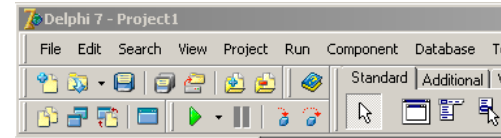
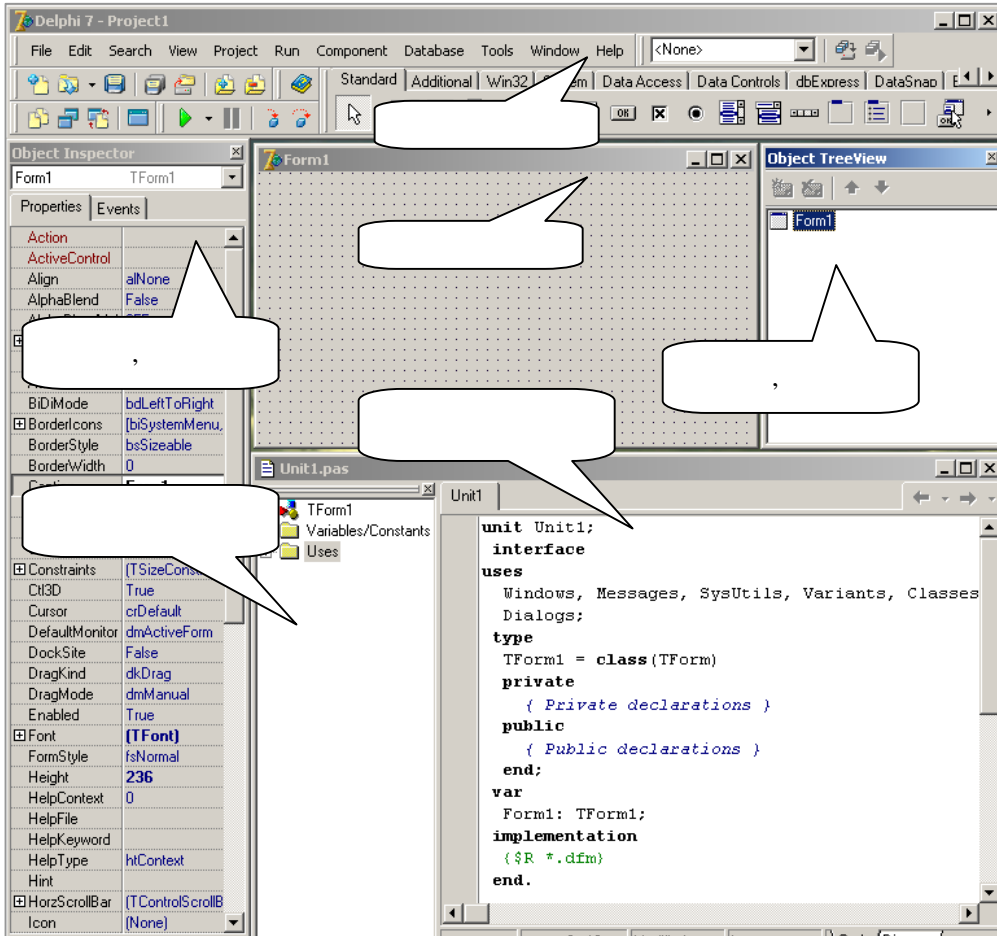
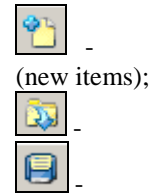


Delphi»,

Delphi.



Speedbar. (View –



(new items);
(open file);
(save file);



(add file to project);
(remove file from project);
(select unit from list);
(select form from list);
(toggle form/unit);
(new form);
(run);
(pause);
(step into);
(step over).

Delphi (View – Component Palette).

– Configure).



Windows

Logo

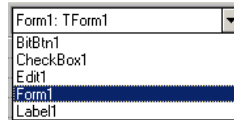
(). Properties

2 : Properties () Events



Delphi

Pascal.



unit implementation.

2

Delphi

PAS, DFM I DCU

- ◆ PAS-
- ◆ DFM-
- ◆ DCU-
- DCU-

EXE.
Delphi

Form1.



Form1.

3

(DPR-),

(RES-),

(DOF-),
(DFM-),
(PAS-),

(-).

(CFG-).

File

Save Project As.

Save Unitl As.

Delphi

(pas-)

(dpr-)

4

Object Inspector.

Object Inspector
Properties ()

1 (mform)

Name	
Caption	
Width	
Height	
Top	
Left	
BorderStyle	: (bsSizeable), (bs Single) (bsNone).
BorderIcons	: biSystemMenu, biMinimize, biMaximize biHelp. biSystemMenu , biMinimize— , biMaximize— , biHelp —
Icon	
Color	
Font	" "

width

Height

Standard

Delphi

Name

: Edit1 Edit2.

2

Edit



Name	
Text	
Left	
Top	
Height	
Width	
Font	
ParentFont	: True - Font Font

Delphi

- Label.

Label

Standard.

Label

3

Label



Name	
Caption	
Font	
ParentFont	: True - Font Font
AutoSize	
Left	
Top	
Height	
Width	
Wordwrap	

Button,

Button

Standard.

4

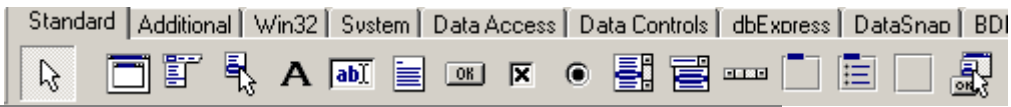
Button



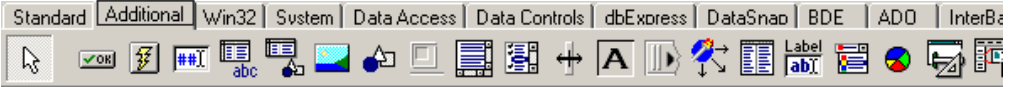
Name	
Caption	
Enabled	True, False
Left	
Top	
Height	

6

Delphi 7 . - .
Standard - ,
Additional - ;
Win32 - ;
System - ;
Dialogs - ;
Samples - ;
ActiveX - Delphi, , Delphi Delphi.
Standard Additional.



Standart	Frame	
	MainMenu	.
	PopurMenu	.
	Label	-
	Edit	1
	Memo	
	Button	, OnClick
	CheckBox	,
	RadioBatton	.
	ListBox	,
	ComboBox	1
	ScrollBar	
	GproupBox	.
	Radiogroup	
Panel	.	
ActionList		



Additional	BitBtn	
	SpeedButton	
	MaskEdit	.
	StringGrid	
	DrawGrid	
	Image	
	Shape	
	Bevel	
	ScrollBox	
	CheckListBox	
	Splitter	
	StaticText	
	ControlBar	
	ApplicationEv	Windows
	ValueListEdit	
	LabeledEdit	
	ColorBox	
	Chart	
ActionManager		
ActionToolBar		

(Event) — **OnClick,** **OnDblClick.**

5 Windows

OnClick	
OnDblClick	
OnMouseDown	
OnMouseUp	
OnMouseMove	
OnKeyPress	
OnKeyDown	OnKeyPress, OnKeyDown
OnKeyUp	
OnCreate	(,).
OnPaint	
OnEnter	
OnExit	

Delphi

Edit,

OnKeyPress

Object Inspector



Events ().

Events

Object Inspector
Delphi

Form1, Button1, Click, TForm1.Button1Click.

8

1. Caption ()
2. « Delphi».
3. Standart Label () -  Label1.
4. Caption « Delphi».
5. : Font – Left (), Top (), Width (), Height (),
6. (Button1) Standart 
7. Label2, Caption «?».


```

Junit
procedure TForm1.Button1Click(Sender: TObject);
begin
end;
end.

```

8.

OnClick (),

« ».

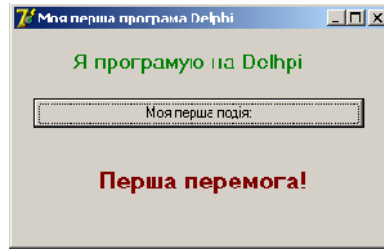
Button1

9.

10. begin end

Label2.Caption:=' ' !';

11.



8

Delphi,

1. D: MyProject\OldPR1,

2. MyProject NewPR1.

3. Delphi,

4. MyProject\OldPR1,

5. :

◆ ;

◆ ;

◆ ;

?

6.

7. OnClick

8.

9.

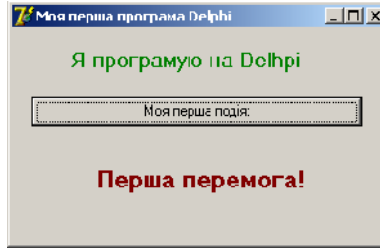
10. MyProject\NewPR1;

11.

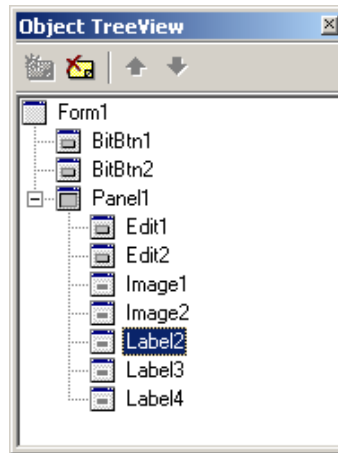
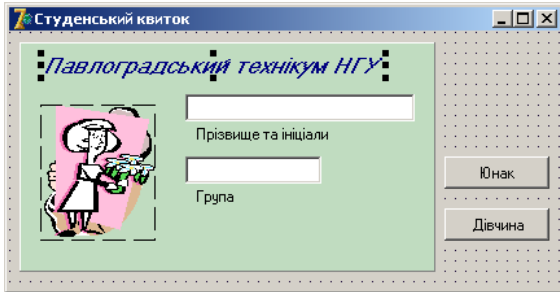
1.

8

D: 8.



2



1. (Standard) Panel1,
BitBtn1, BitBtn2
Image1 (Additional
PICTURE none

2. Panel1
3.).
4. C:\Program Files\Microsoft Office\Clipard.
5. STRECH TRUE.
6. 2-5
7. VISIBLE () FALSE.
8. Edit1, Edit2, Label1, label2, label3, label4, label5 (Standard)
- 9.

	Left	Top	Height	Width	Caption	Text
Form1	192	107	225	433	..	
Panel1	8	8	177	321		
BitBtn1	336	96	25	81		
BitBtn2	336	136	25	81		
Image1	16	48	105	89		
Image2	16	48	105	89		
Edit1	128	40	21	177		
Edit2	128	88	21	105		
Label1	120	136	13	171	...	
Label2	20	8	16	267	...	
Label3	136	64	13	102	...	
Label4	136	112	13	29		

- 10.
11. BEGINEND
12. Image1.Visible:=True;
Image2.Visible:=False;
Beep;
13. Image1.Visible:= False;
Image2.Visible:= True;
Beep;
14. D: Bilet,

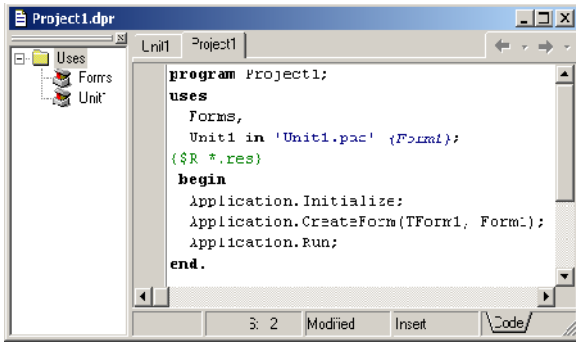
15. NameProject. Delphi. * . , , **Proiect - Build**
16. Bilet, *
17. , .
18. , .

Delphi (Delphi DPR) (Delphi Project - View
 PAS). , Delphi , Project - View
 Source. , -

PROGRAM

END

END



PROGRAM

:(*...*), {.....}, //.

USES.

Uses Forms, Unit1 in 'UNIT1.PAS' {Form1}; {\$R *.RES}
 Forms Unit1. Forms Unit1-

Delphi,

BEGIN

END

3-

Application.Initialize;
 Application.CreateForm(TForm1, Form1);
 Application.Run;

Application. Application

Windows-

Delphi,

1. :
2. ;
3. ;
4. .

UNIT,

INTERFACE,

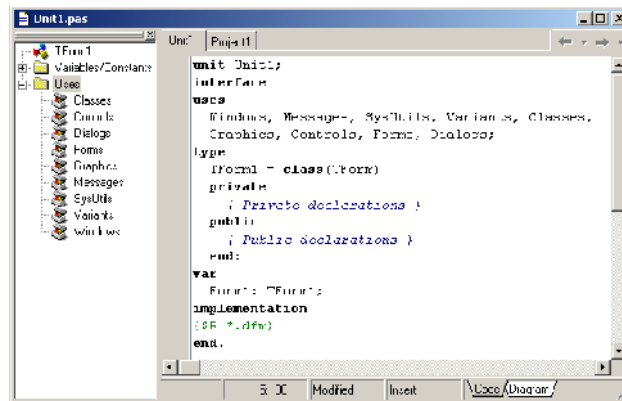
(

UNIT1). IMPLEMENTATION.

END

:

unit Unit1;
interface
 // секція інтерфейсних оголошень
implementation
 // секція реалізації
end.



Unit1

Delphi,

Delphi

Delphi

```
CONST.
Const Kbyte = 1024; Mbyte = Kbyte*1024; Gbyte = Mbyte*1024;
```

ObSumma Skidka. Delphi

VAR.

Shortint	-128-127	8	
Smallint integer	-32 768 - 32 767	16	
Longint	-2 147 483 648 - 2 147 483 647	32	
Int64	$-2^{63} - 2^{63} - 1$	64	
Byte	0-255	8	
Word	0-65 535	16	
Longword	0 - 4 294 967 295	32	
Real	$2.9 \times 10^{-39} - 1.7 \times 10^{38}$	11-12	06
Single	$1.5 \times 10^{-45} - 3.4 \times 10^{38}$	7-8	04
Double	$5.0 \times 10^{-324} - 1.7 \times 10^{308}$	15-16	08
Ansichar			
Widechar			
shortstring string	ANSI, 0 255		
Longstring	Unicode, 0 65 535.		
WideString	0		

Boolean : Var a,b,c: real; i,k,n: word;

(+) : 217 -23 +107 8900. : 2.28 -0.02 10.5, : 7.9 9 1.008 -12

5.0 -23, Delphi 16- : \$7F2 \$1A0... (4.7 -27 ~ 4,7• 10⁻²⁷).

Delphi

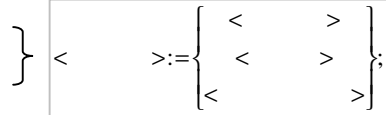
- not, @, ;
 - *-, /-, div -, mod -
 - +, -, or, xor;
 - : =, <, >, <=, >=, <>, in {}.
- Delphi,

:

$$\frac{a^3 + 2x}{4a - x} \sim (a^3 + 2x)/(4a - x); \quad \frac{(1+a)^2 - 2}{4(a-x)} \sim ((a+1)^2 - 2)/(4(a-x)).$$

Delphi:

Delphi	,	.	Delphi	,	.
---------------	---	---	---------------	---	---



Sin(x)	Sin x -	Round(x)	
Cos(x)	Cos x -	Frac(x)	
Arctan(x)	Arctg x -	Ln(x)	Ln X
Abs(x)	|x| -	Trun(x)	
Sqrt(x)	x -	Int(x)	
Sqr(x)	x ² -	Random	∈ (0;1)
Exp(x)	e ^x -	Random(n)	∈ [0;n]

- $\sin 40^\circ = \sin(40 \cdot \pi / 180) \sim \sin(40 \cdot \pi / 180);$
- $\operatorname{tg}(x + \pi/4) = \operatorname{tg}(x + \frac{\pi}{4}) = \frac{\sin(x + \frac{\pi}{4})}{\cos(x + \frac{\pi}{4})} \sim \sin(x + \pi/4) / \cos(x + \pi/4);$
- $\log_2 x = \frac{\ln x}{\ln 2} \sim \ln(x) / \ln(2);$
- $a^x = e^{\ln a^x} = e^{x \cdot \ln a} \sim \exp(x \cdot \ln(a));$
- $\sqrt[n]{a} = a^{\frac{1}{n}} \sim \exp(1/n \cdot \ln(a));$
- $\arcsin x = \operatorname{arctg} \frac{x}{\sqrt{1-x^2}}; \arccos x = \operatorname{arctg} \frac{\sqrt{1-x^2}}{x} \sim \operatorname{arctan}(\operatorname{sqr}(1-\operatorname{sqr}(x))/x);$

real,
FloatToStr,

10.

Chr(n)	,	n
IntToStr(k)	-	k
FloatToStr(n)	-	n
FloatToStrF(n, ffixed, k, m)	-	n : ffixed — ; k — () ; m
StrToInt(s)	-	s
StrToFloat(s)	-	s

11

«

».

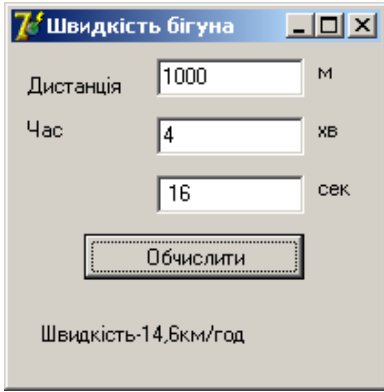
- 1.
- 2.
- 3.

```

a:= 3.056;
f := a;
m := (6*a-b)/3.8;
n := Round((x2-x1)/dx);
x1 := (-b + Sqrt(d)) / (2* );
m := Random(10);
cena := StrToInt(Edit1.Text);
Edit2.Text := IntToStr(100);
mes := 'x1=' + FloatToStr(x1);
    
```

f.
b,

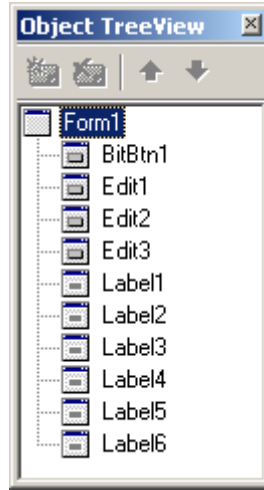
m.



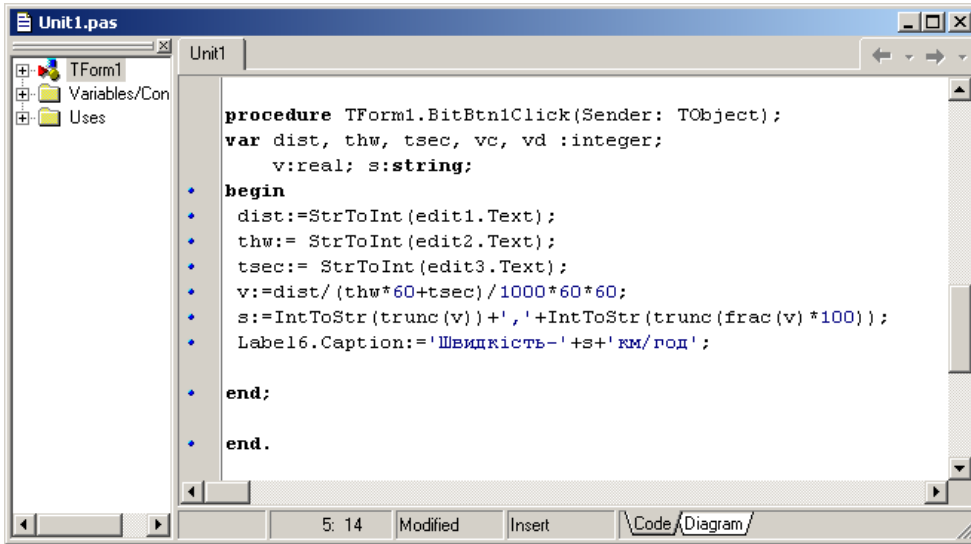
() (« , ») (/)

Standard,
Additional.

begin...end;



BitBtn1



10

Delphi.

1. D:
2. MyProject\PR1 MyProject\PR2;
3. Delphi;

4. MyProject\PR1.
5. 2-
6. MyProject\PR1.
7. MyProject\PR2;
- 8.

12.

1. Delphi - : , 2002 .
2. Delphi Windows - : , 1996 .
3. Turbo Pascal & Delphi - : , 2002
4. Delphi. - : , 2006 .

	.....	1
1	Delphi	2
2	.....	3
3	.....	3
4	,	4
5	,	5
6	,	6
7	.....	8
8	.....	8
	8.....	9
	9.....	10
9	Delphi	12
10	Delphi	12
11	«	15
12	.....	16
	10.....	17
	.....	18