

```

1: unit Unit1;
2:
3: {$mode objfpc}{$H+}
4:
5: interface
6:
7: uses
8:   Classes, SysUtils, Forms, Controls, Graphics, Dialogs, StdCtrls, Grids,
9:   SdpoSerial, TAGraph, TASeries, Unit2;
10:
11: type
12:
13:   { TForm1 }
14:
15:   TForm1 = class(TForm)
16:     BOpen: TButton;
17:     BManda: TButton;
18:     BClose: TButton;
19:     Button1: TButton;
20:     Calculos: TButton;
21:     formulario_2: TButton;
22:     Edit2: TEdit;
23:     Edit3: TEdit;
24:     Edit4: TEdit;
25:     Edit5: TEdit;
26:     Edit6: TEdit;
27:     Edit7: TEdit;
28:     Fin: TButton;
29:     Label1: TLabel;
30:     Label2: TLabel;
31:     Label3: TLabel;
32:     Label4: TLabel;
33:     Label5: TLabel;
34:     Label6: TLabel;
35:     poneRet: TButton;
36:     Lineas: TButton;
37:     Chart1: TChart;
38:     lineas1: TLineSeries;
39:     CheckBox1: TCheckBox;
40:     Edit1: TEdit;
41:     Memo1: TMemo;
42:     Serial: TSdpoSerial;
43:     StringGrid1: TStringGrid;
44:     procedure BCloseClick(Sender: TObject);
45:     procedure BMandaClick(Sender: TObject);
46:     procedure BOpenClick(Sender: TObject);
47:     procedure Button1Click(Sender: TObject);
48:     procedure CalculosClick(Sender: TObject);
49:     procedure FinClick(Sender: TObject);
50:     procedure formulario_2Click(Sender: TObject);
51:     procedure LineasClick(Sender: TObject);
52:     procedure poneRetClick(Sender: TObject);
53:     procedure SerialRxData(Sender: TObject);
54:   private
55:
56:   public
57:
58:   end;
59:
60: var
61:   sBufEntrada : string;
62:   sBufProceso : string;

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63:   arSensor : array [1..1000] of integer;
64:   arO2pp : array [1..1000] of real;
65:   arTemp : array [1..1000] of real;
66:   arPres : array [1..1000] of integer;
67:   arO2rel : array [1..1000] of real;
68:   Form1: TForm1;
69:
70: implementation
71:
72: {$R *.lfm}
73:
74: { TForm1 }
75:
76: procedure TForm1.BOpenClick(Sender: TObject);
77: begin
78:   try
79:     Serial.Open;
80:   except
81:     on E: Exception do
82:       ShowMessage('Error: ' + E.ClassName + #13#10 + E.Message);
83:   end;
84: end;
85:
86: procedure TForm1.Button1Click(Sender: TObject);
87: var
88:   texto : string;
89:   texto2 : string;
90:   bActivo : boolean;
91:   iPosicion : Integer;
92: begin
93:   texto2 := ' cosa';
94:   texto := serial.Device;
95:   bActivo := serial.Active;
96:   CheckBox1.Checked:= bActivo;
97:   texto := Edit1.Text;
98:   texto := texto + 'cosa' + #13 + #10 + 'cosa2';
99:   Memo1.Lines.Add(texto);
100:   texto2 := #13 + #10;
101:
102:   iPosicion := pos(texto2, texto);
103:   edit1.Text:= iPosicion.ToString;
104:
105: end;
106:
107: procedure TForm1.CalculosClick(Sender: TObject);
108: var
109:   b1 : byte;
110:   i1: integer;
111:   w1 : word;
112:   lw1 : longword;
113:   li1 :longint;
114:   ch1 :char;
115:   s1 :string;
116:   r1 : real;
117:
118: begin
119:   i1 := 123456;
120:   s1 := IntToStr(i1);
121:   b1 := 234;
122:   i1 := integer(b1);
123:   s1 := inttostr(i1);
124:   w1 := 29929;

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125:     lil := 123456789;
126:     Str(lil,s1);      //str() convierte cualquier numero a string
127: end;
128:
129: procedure TForm1.FinClick(Sender: TObject);
130: begin
131:     Close;
132: end;
133:
134: procedure TForm1.formulario_2Click(Sender: TObject);
135: begin
136:     Ficheros.Show;
137: end;
138:
139: procedure TForm1.LineasClick(Sender: TObject);
140: const
141:     N = 100;
142:     MIN = -10;
143:     MAX = 10;
144: var
145:     i: Integer;
146:     x: Double;
147:
148: begin
149:     for i:= 0 to N-1 do begin
150:         x := MIN + (MAX - MIN) * i /(N-1);
151:         lineas1.AddXY(x, sin(x));
152:     end;
153: end;
154:
155: procedure TForm1.poneRetClick(Sender: TObject);
156: var
157:     sBufManda :string;
158:     sSalida : string;
159:     sTemp : string;
160:
161: begin
162:     sSalida:= 'S ';
163:     sTemp:= edit7.Text;
164:     if Length(sTemp) = 3 then sSalida:=sSalida + sTemp;
165:     sSalida := ' O ';
166:     sTemp := Edit2.Text;
167:     if Length(sTemp) = 6 then sSalida := sSalida + sTemp;
168:     sSalida := sSalida + ' T ';
169:     sTemp:= Edit3.Text;
170:     if Length(sTemp) = 5 then sSalida := sSalida + sTemp;
171:     sSalida:= sSalida + ' P ';
172:     sTemp:= edit4.Text;
173:     if Length(sTemp) = 4 then sSalida:= sSalida + sTemp;
174:     sSalida:= sSalida + ' % ';
175:     sTemp:= edit5.Text;
176:     if Length(sTemp) = 6 then sSalida:=sSalida + sTemp;
177:     sSalida:=sSalida + ' e ';
178:     sTemp:= edit6.Text;
179:     if Length(sTemp) = 4 then sSalida:=sSalida + sTemp;
180:
181:     sSalida:=sSalida + #13 + #10;
182:     edit1.Text:= sSalida;
183:     serial.WriteData(sSalida);
184: end;
185:
186: procedure TForm1.SerialRxData(Sender: TObject);

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```
187: const
188:   RET_CARRO = #13 + #10;
189: var
190:   sEntrada : string;
191:   sTemp : string;
192:   sRetCarro : string;
193:   iPunt : Integer;
194: begin
195:   sRetCarro:= RET_CARRO;
196:   sEntrada:= Serial.ReadData;
197:   sBufEntrada:= sBufEntrada + sEntrada;
198:   iPunt := pos (sRetCarro, sBufEntrada);
199:   if iPunt <> 0 then begin
200:     sTemp := copy(sBufEntrada,1,iPunt-1);
201:     sBufEntrada:= '';
202:     memol.Lines.Add(sTemp);
203:   end;
204: end;
205:
206: procedure TForm1.BCloseClick(Sender: TObject);
207: begin
208:   Serial.Close;
209: end;
210:
211: procedure TForm1.BMandaClick(Sender: TObject);
212: begin
213:   if Serial.Active then Serial.WriteData(Edit1.Text)
214:   else ShowMessage('no esta el puerto abierto');
215: end;
216:
217: end.
218:
```