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LAMPIRAN

LISTING PROGRAM SINK (COORDINATOR)

```
#include <RF24Network.h>
#include <RF24.h>
#include <SPI.h>

RF24 radio(9,10);
RF24Network network(radio);

const int tombol=A3;

uint16_t this_node;

void setup(void)
{
  Serial.begin(9600);

  this_node = 00;

  SPI.begin();
  radio.begin();
  network.begin(101,this_node);
  pinMode(tombol,INPUT_PULLUP);

}

void loop(void){
  if(digitalRead(tombol)==LOW){

    for(;;){

      network.update();
      while ( network.available()){

        RF24NetworkHeader header;
        network.peek(header);

        unsigned long message;
        network.read(header,&message,sizeof(unsigned long));


        if(header.from_node==01){
         Serial.print(message);
         Serial.print('A');
         }

         if(header.from_node==02){
         Serial.print(message);
         Serial.print('B');
         }
          delay(300);
      }
    }
  }
}
```

LISTING PROGRAM ANTARMUKA

```
unit Grafik;

interface

uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
  Dialogs, CPort, sSkinProvider, sSkinManager, ExtCtrls, sBevel, StdCtrls,
  sButton, sEdit, sGauge, TeeProcs, TeEngine, Chart, sLabel, sPanel, StrUtils,
  Series, ComCtrls, acProgressBar, Grids, DBGrids, DB, ADODB, RpCon,
  RpConDS, RpDefine, RpRave;

type
  TForm1 = class(TForm)
    ComPort1: TComPort;
    sSkinManager1: TsSkinManager;
    Chart1: TChart;
    sEdit1: TsEdit;
    sEdit2: TsEdit;
    sLabel1: TsLabel;
    sLabel2: TsLabel;
    sPanel1: TsPanel;
    sButton2: TsButton;
    sButton1: TsButton;
    sButton3: TsButton;
    sButton4: TsButton;
    Timer1: TTimer;
    sLabel3: TsLabel;
    sLabel4: TsLabel;
    sLabel5: TsLabel;
    sLabel6: TsLabel;
    sLabel7: TsLabel;
    sLabel8: TsLabel;
    Series1: TLineSeries;
    Chart2: TChart;
    sGauge1: TsGauge;
    sGauge2: TsGauge;
    sLabel9: TsLabel;
    sLabel10: TsLabel;
    Series2: TLineSeries;
    sLabelFX1: TsLabelFX;
    sLabel11: TsLabel;
    sLabel12: TsLabel;
    sButton5: TsButton;
    ADOConnection1: TADOConnection;
    ADOTable1: TADOTable;
    sPanel2: TsPanel;
    sButton6: TsButton;
    sButton7: TsButton;
    sButton8: TsButton;
    DataSource1: TDataSource;
    DBGrid1: TDBGrid;
    sLabel13: TsLabel;
    RvProject1: TRvProject;
    RvDataSetConnection1: TRvDataSetConnection;
    procedure Timer1Timer(Sender: TObject);
    procedure sButton2Click(Sender: TObject);
    procedure sButton1Click(Sender: TObject);
    procedure sButton4Click(Sender: TObject);
    procedure sButton3Click(Sender: TObject);
    procedure ComPort1RxChar(Sender: TObject; Count: Integer);
    procedure sButton5Click(Sender: TObject);
    procedure sButton6Click(Sender: TObject);
    procedure sButton7Click(Sender: TObject);
    procedure sButton8Click(Sender: TObject);

```

```
procedure TForm1.sButton1Click(Sender: TObject);
begin
comport1.Connected:=True;
sButton1.Enabled:=False;
sButton3.Enabled:=true;

end;

procedure TForm1.sButton4Click(Sender: TObject);
begin
comport1.Connected:=False;
sButton1.Enabled:=true;

end;

procedure TForm1.sButton3Click(Sender: TObject);
begin
application.Terminate;
end;

 procedure TForm1.sButton5Click(Sender: TObject);
begin
sGauge1.Progress:=0;
sGauge2.Progress:=0;
sEdit1.Text:='';
sEdit2.Text:='';
end;

procedure TForm1.ComPort1RxChar(Sender: TObject; Count: Integer);
begin
ComPort1.ReadStr(Str,Count);

if Str<>'A' then
serin:=Str
else
begin
sEdit1.Text:=serin;
data := strToint(sEdit1.Text);
dg := strToint(sEdit1.Text);
sGauge1.Progress:=dg;
serin:='';
with series1 do
begin
 add(data,'',clred);
 end;
 with chart1.BottomAxis do
 begin
 automatic:=false;
 maximum:=series1.XValues.last;
 minimum:=maximum-10;
 end;
end;
```

```
152
153   if Str<>'B' then
154   serin2:=Str
155   else
156   begin
157   sEdit2.Text:=serin2;
158   data2 := strToint(sEdit2.Text);
159   dg2 := strToint(sEdit2.Text);
160   sGauge2.Progress:=dg2;
161   serin2:='';
162
163   with series2 do
164   begin
165    add(data2,'',clred);
166    end;
167    with chart2.BottomAxis do
168    begin
169    automatic:=false;
170    maximum:=series1.XValues.last;
171    minimum:=maximum-10;
172    end;
173
174   end;
175
176   end;
177
178   procedure TForm1.sButton6Click(Sender: TObject);
179   begin
180   Adotable1.Open;
181   Adotable1.Append;
182   Adotable1.FieldByName('DATE').AsString:= FormatdateTime('d/mm/yyyy',Date);
183   Adotable1.FieldByName('TIME').AsString:= FormatDateTime('hh:nn:ss',Time);
184   Adotable1.FieldByName('GAS (CO) NODE 1').AsString:=sEdit1.Text;
185   Adotable1.FieldByName('GAS (CO) NODE 2').AsString:=sEdit2.Text;
186   Adotable1.FieldByName('UNIT IN').AsString:='PPM';
187   Adotable1.Post;
188   end;
189
190
191   procedure TForm1.sButton7Click(Sender: TObject);
192   begin
193   Adotable1.Delete;
194   end;
195
196   procedure TForm1.sButton8Click(Sender: TObject);
197   begin
198   rvproject1.Execute;
199   end;
200
201   end.
```